

AMERICAN GAS ASSOCIATION

Monthly

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OFFICE OF THE SECRETARY
1415 K STREET
N.W. WASHINGTON, D.C.



JANUARY
1955

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 American Gas Associa-
 publication issued by
 Gas Association Labora-
 Gas Research D.

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THIS IS YOUR INDUSTRY SERIES

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 1957-58

ture. On Oven and Broiler
 Doors of Domestic Gas Ranges," was
 prepared by C. H. Pountney, Jr., of the
 Laboratories Staff. Copies may be
 tained from the Laboratories or As-
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 ing customers will aggregate 16.5
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 during the 1957-58 heating season.

The greatest relative post-war in-
 crease in demand for gas

in the forefront of the indus-
 try. Your larger companies, in particular,
 have been in the forefront of the in-
 dustry.

NEW SERIES FOR EMPLOYEES

Art work and suggested page layouts are combined
 approximately 750 words text in the A. G. A. Public In-
 formation Bureau's new monthly employee information
 entitled "This Is Your Industry." For details, see page

On an annual basis firm industrial

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 cial community. By so
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Steel framework makes easier overhaul of "Christmas tree." Photograph by Texas Gas Transmission Corporation

TRADITIONALLY, the turn of the year is a time of summing up and of looking forward. For a summary of deeds accomplished and prospects in view for the gas industry, people both in and out of the industry look each year for the statement by the president of American Gas Association. Our lead article is this annual summary, this time by F. M. Banks, president, Southern California Gas Co., Los Angeles. . . . A similar statement by T. T. Arden, president of Gas Appliance Manufacturers Association, reviews the year for the manufacturers (page 9); the production and consumption figures of our sister fuel, LP-Gas, are presented on page 11. . . . Many a product is sold as much by its package as what's inside. Gas and gas appliances are still sold by what they'll do, but good packaging helps. When it comes to selling gas kitchen and laundry appliances, nothing helps like a setting in a sparkling new kitchen. Turn to page 16 to read what cabinet manufacturers and A. G. A.'s New Freedom Kitchen and Laundry Bureau are doing to make these kitchens available for gas company sales floors. . . . Another kind of kitchen should also be your concern. We refer to classroom kitchens, where tomorrow's homemakers—and customers—are learning culinary skills. How Southern Union Gas supplies classrooms with modern ranges is told on page 13.

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NO. 1

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STRAWS *in the wind*

● *Designed to give you a panoramic*

NEW PLANS FOR A NEW YEAR

The new year begins with happy auguries for natural gas transmission and storage, even though storm signals are still flying over the controversial question of field production regulation.

First, plans for supplying natural gas to the Pacific Northwest took a dramatic turn with an agreement concluded between three pipeline companies—Pacific Northwest Pipeline, Westcoast Transmission and El Paso Natural. If the Federal Power Commission and other agencies approve, previously planned supplies from San Juan Basin will be augmented by natural gas from the Peace River field in Alberta, Canada.

Furthermore, this vast new area will be supplied gas without threat of depleting supplies for California. By linking a new pipeline to the proposed Pacific Northwest line, El Paso Natural will be able to bring more natural gas into its important California market.

To sum up the proposals, which are reported with more detail in our news section, the agreement makes possible a vast new network of transmission lines, international in scope and tapping undeveloped gas fields of tremendous potential reserves.

Jumping across the continent to New York and New Jersey, we find developments that, if not as spectacular, speak in firm accents of orderly and stable progress. A compromise agreement between Tennessee Gas Transmission and Transcontinental Gas Pipe Line has

been approved by the FPC which will enable these companies to begin increased deliveries to major distribution companies in the Metropolitan New York area.

In addition, approval was granted Tennessee to join with Iroquois Gas and New York State Natural Gas, respectively, to build underground storage facilities costing more than \$20,000,000. These plans, together with pipeline looping and other projects already initiated or proposed, look forward to a stable supply for year around service to distribution companies and their customers.

Aside from the very real additions to our industry's capacity in terms of cubic feet of gas, these developments have another heartening aspect. The approved New York-New Jersey compromise is a final footnote on the peaceful settlement of what once was a fiercely competitive battle between two pipeline giants. The Pacific Northwest agreement marks the beginning of amiable relations between two companies which only weeks ago were wrangling with equal fierceness over that market.

These agreements are notable in that they resolve competition for markets not through curtailment, but through expansion, of gas supplies. Out of such settlements will come progress and benefits for the entire gas industry and the consumers it serves.

NEW STANDARDS EFFECTIVE

New industry standards applicable to the design of 11 major gas appliances and accessories became effective Jan. 1, 1955. These included boilers, central furnaces, vented recessed heaters, floor furnaces, domestic ranges, room heaters, domestic incinerators, clothes dryers, duct furnaces, water heaters and gas valves. The requirements were prepared by industry representatives serving on the Approval Requirements Committee and its subcommittees and were approved as American Standards by ASA on Oct. 7, 1954.

ENERGY SOURCES

Impact of natural gas on nation's fuel supply is a highlight of a study to be published by "Heating, Piping & Air Conditioning" magazine. Changing pattern of power sources are depicted in table which shows that natural gas as an energy source has increased from 3.2 percent of the nation's total in 1900 to 23.1 percent by 1953. During the century total energy output has increased more than five times.

BACK AMENDMENT

Support to the campaign to amend Natural Gas Act is forthcoming from U.S. Chamber of Commerce. Article in its "Washington Report" concludes: "Utility regulation has historically been confined to those businesses having a natural monopoly. To impose this regulation on the producer who risks his capital to discover and gather natural gas with the expectation of a fair return on his investment is a long step in the direction of socialism."

VENTING DESIGN

A literature review and design study of gas appliance venting systems is to be published soon by A. G. A. Laboratories. The discussion will present an evaluation of pertinent existing information on the venting of gas appliances. Two theoretical methods for designing a venting system together with their area of applicability and the solution of a sample problem by means of each method are presented.

Industry trends and activities

STORAGE IN U.K.

Underground storage of manufactured gas, using methods developed in the U.S., is planned in the United Kingdom. Gas equivalent to 10 million cubic feet will be stored under pressure in a salt stratum 1,000 feet below ground level. The "Gas Journal" comments: "Clearly, we in Britain cannot expect to adopt this method of storage to anything like the same extent as in America. However, the value of strategically situated reservoirs of gas which can be drawn upon when required is undeniable."

AND IN OHIO

This undeniable value of underground storage in the U.S. is demonstrated by the situation in Ohio. In a letter to employees, Allan W. Lundstrum, president, Ohio Fuel Gas Co., estimates that on the coldest day this winter 60 percent of the gas dispatched must come from storage. "Without storage it would be impossible to serve our customers in winter to heat their homes," Mr. Lundstrum said.

GAS LAUNDRY PARADE

Beginning in May utilities in Newark, Philadelphia and Pittsburgh will show a parade of gas home laundries under the auspices of A. G. A. New Freedom Gas Kitchen and Laundry Bureau. Featured will be seven "dream" laundries from the pages of leading women's magazines.

OFFER FREE SHOW

Gas companies participating in the New Freedom Gas Laundry promotion this spring are offered a top show—the "No Soap Opera" staged by the makers of "all". Monsanto Chemical says no talent or traveling fees are involved; the gas company provides only live appliances and a stage.

TV SPOTS

Backing for the campaign is also coming from Colgate-Palmolive on behalf of its "Fab". Scheduled are 28 one-minute commercials on such top TV shows as "Strike It Rich", "Big Pay-off", and "Modern Romances". Utilities may tie-in on the local level with promotional aids, including free boxes of "Fab" with a special New Freedom Gas Laundry imprint.

SEISMOGRAPHS MAP APPALACHIANS

For the first time in the Appalachian area, seismographic recordings are being used by Ohio Fuel Gas Company. At present still in a testing stage, the method, which utilizes new and more sensitive equipment, is expected to be of value in mapping underground formations both for exploration and possible storage.

AIR CONDITIONING UP

A definite and growing trend toward gas year-round air conditioning of large occupancy buildings in Dallas is reported by Lone Star Gas Company. Total gas load for air conditioning in office buildings and other large structures in Dallas amounted to 12,085 tons at the end of 1954, with another 4,000 tons already contracted in 1955.

RANGE RESEARCH

Tappan Stove Company reports that it spent more than \$1,000,000 in gas range research, engineering and tooling during 1954. This information was part of a letter sent to editors reviewing the company's contributions to the advance of gas cooking during the past year.

EXTEND DEALER CREDIT

Credit facilities for gas appliance dealers have been instituted in several territories of the Columbia Gas System. Limited recourse plan offers dealers the chance to increase credit sales without increasing capital investment. Dealer responsibility ends on 12-month notes after four payments by customer, six on 13-36 month notes.

WELCOME, NEIGHBOR

LP-Gas consumer advertising will seek added impact by preferred space placement near A. G. A.'s own national advertisements. This was revealed by National Council for LP-Gas Promotion in announcing a stepped-up program of advertising and promotion for 1955.

HOLLYWOOD'S BEST

What the Hollywood A. G. A. Hollywood Bureau terms the most attractive modern gas kitchen ever designed for a Hollywood production is now before cameras shooting "Woman on the Beach". Appearing in the film in addition to the kitchen are Joan Crawford, Jan Sterling and Jeff Chandler. Look for promotional plans to tie-in with this film.

SORBY ON SELLING

Best book in a long time on fundamental salesmanship is "Selling that Sells" by E. Carl Sorby, Geo. D. Roper Corp. vice-president. This master salesman has put his sales technique between covers—and the result is a book that's a gold mine for every gas range salesman. For information, write Cy Edwards, Geo. D. Roper Corp., Rockford, Illinois.

TIMELY TIPS

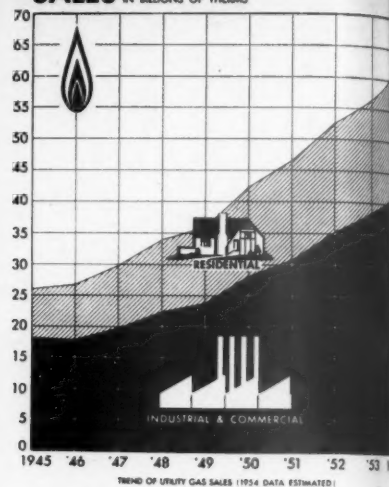
A timely booklet on how to save heating costs has been distributed by Consolidated Edison of New York, Inc., to its customers. General information on insulation and weather proofing, plus hints for increasing efficiency of specific types of heating plants, is included.

SEEK AMENDMENT

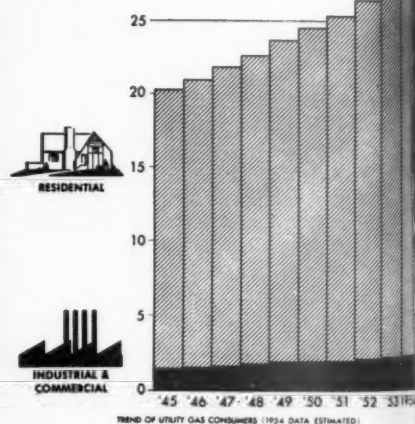
A resolution urging Congress to amend the Natural Gas Act has been adopted by the National Council for LP-Gas Promotion. "The effect of federal regulation of the natural gas producing industry would be a diminishing output, resulting in a decline in the supply of LP-Gas," the resolution stated. Council sponsors include GAMA, LPGA, and Natural Gasoline Association of America.



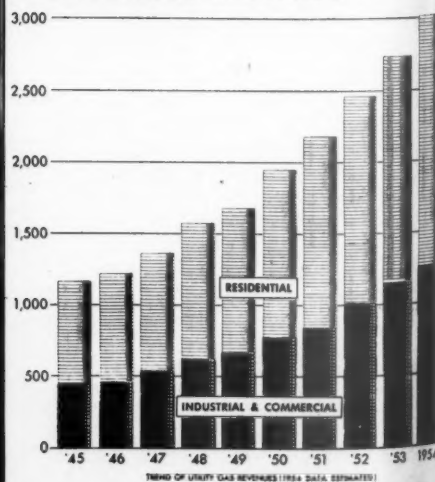
SALES IN BILLIONS OF THERMS



CONSUMERS IN MILLIONS



REVENUES IN MILLIONS OF DOLLARS



Forecast record highs in 1955

By F. M. BANKS

*President, American Gas Association
President, Southern California Gas Company
Los Angeles, California*

The gas utility and pipeline companies in the United States achieved new record levels in numbers of customers served, in volume of gas sold to ultimate consumers and in revenues from the sale of gas during 1954. Reserves of natural gas stood at a new high and new customers were added to utility lines at an ever-increasing rate.

In reviewing their most successful year to date, the member companies of the American Gas Association are almost unanimous in predicting that conditions which helped lift the industry to its high plateau of success in 1954 still will continue. There is every reason to predict that during 1955 the industry will again establish new records for gas service.

Natural gas systems added nearly 18,000 miles of pipeline to their huge national network, bringing natural gas to some new areas and augmenting supplies in areas already served.

The utility and pipeline companies spent more than one billion dollars in 1954 for construction of new facilities and in expansion of present plant. The industry now has gross assets of more than \$14 billion, and expects to add another billion dollars in new construction during 1955. A. G. A. estimates that the industry will spend nearly \$4 billion in the four-year period, 1954 through 1957.

The industry is adding new customers at a rate of more than 800,000 a year and this rate of increase is expected to continue for at least the next two years. By the end of 1955, the industry will be serving more than 29 million customers.

The tremendous growth of our natural gas systems has contributed most heavily to the continued expansion of the gas industry. Today this growing giant serves approximately 25 percent of the energy used in the U. S. More than 95 percent of all gas sales today are natural gas sales.

At the end of 1954, about 21.9 million customers in the U. S. were using natural gas and sales totaled approximately 5.9 trillion cubic feet. Conservative estimates by A. G. A. indicate that at the end of 1957 there will be 25.7 million

natural gas customers using more than 6.9 trillion cubic feet.

The gas utilities were serving approximately 28,000,000 customers at the end of 1954, including about 260,000 LP-Gas customers served directly by gas utility companies. This was a gain of about 750,000 customers, or 2.8 percent over the 27,250,000 customers, including 300,000 LP-Gas customers, on gas utility lines a year earlier. In addition, some 7,000,000 customers are served with LP-Gas in areas not located on gas utility mains. This is a new record for gas utility customers.

More than 22,000,000 customers were receiving natural gas at the year-end, a gain of 5.2 percent over the previous year. Manufactured and mixed gas customers decreased to about 5,770,000 at the end of 1954, a decline of 5.0 percent under the 1953 total.

Total sales of utility gas in 1954 amounted to 60,750,000,000 therms, a new high level, that represented an increase of 7.6 percent over the previous record in 1953.

Natural gas sales reached a new high at 57,440,000,000 therms, a gain of 8.0 percent over the previous year. Manufactured and mixed gas sales totaled about 3,220,000,000 therms, up 0.9 percent over 1953.

Revenues from sales of gas in 1954 reached a new record high of more than \$3,013,000,000, a gain of 10.8 percent over the previous record of \$2,719,000,000 established in 1953. Natural gas revenues increased 13.0 percent to total \$2,544,000,000, also a new record. Manufactured and mixed gas revenues totaled \$448,000,000, up 0.1 percent over 1953.

Pipelines gain

Last year the natural gas systems added more than 17,500 miles of new gathering, transmission, storage and distribution lines to their great network. This brings the total pipeline system for carrying natural gas in this country to about 413,000 miles. With an additional 50,000 miles of pipeline carrying mixed and manufactured gas, the nation's system of utility mains totals more than 463,000 miles, or enough to circle the equator 18 times. The pipeline system of the gas industry constitutes the greatest mainline transportation system in the U. S.

Photo courtesy Cities Service

● Review of 1954 shows new record levels in number of customers served, in

Temporary certification has been granted by the Federal Power Commission for the construction of the American-Louisiana Pipeline Company's 1,200 mile line from Texas to Michigan. This 30-inch line will cost about \$130,000,000. Full Commission certification has been granted for the 1,800 mile line to be built by the Pacific Northwest Pipeline Company which is to bring natural gas from the San Juan Basin in Colorado and New Mexico to the Pacific Northwest, the only geographical region in the United States not presently served with natural gas. Late in 1954 the 900 mile Gulf Interstate line went into service bringing additional supplies of gas to the Columbia Gas System.

Gas house heating continues to be one of the gas industry's fastest growing markets. Approximately 1.2 million new gas house heating customers will be added to utility lines in each of the next three years, according to estimates by A. G. A. To serve this constantly growing market, more and more use is being made of underground storage of natural gas. At the beginning of 1954 there were 167 underground storage fields located in 17 states, with an ultimate capacity of 1,735 billion cubic feet of natural gas.

In these underground reservoirs, natural gas which has been brought from its original location is stored during the summer months to be drawn upon during the peak load days in the winter. The gas industry spent about \$50 million on underground storage facilities in 1954 and probably will spend a like amount in the next two years on such facilities.

Ample reserves

Reserve supplies of natural gas continue more than ample to serve the great potential market as well as the huge existing market. The A. G. A. Committee on Natural Gas Reserves estimated that at the beginning of 1954, the total proved recoverable reserves of natural gas in the U. S. amounted to 211.4 trillion cubic feet. This was a gain of 11.7 trillion cubic feet over the previous record of 199.7 trillion cubic feet a year earlier. This record gain was made despite an all-time high production of 9.2 trillion cubic feet during 1953.

The discovery of 7.1 trillion cubic feet of new natural gas reserves during 1953 as compared with 5.4 trillion cubic feet in new discoveries in 1952 emphasized the important increase in exploration activities during 1953. Further exploration and drilling in existing fields added 13.4 trillion cubic feet to the nation's proved recoverable reserves.

These estimates include only *proved* recoverable reserves. They do not include to their fullest extent potential reserves in new areas now being developed such as the off-shore fields in the Gulf area and fields like the San Juan basin in Colorado and the Green River basin in Wyoming. Some geologists estimate there are more than 600 trillion cubic feet of natural gas in this country alone.

House heating is not the only field in which the gas industry expects to make great strides in the near future. While it is true that anticipated space heating requirements in 1957 will be about 53 percent higher than those of 1953, over-all sales by gas utilities for 1957 are expected to total nearly 75 billion therms. This would represent a total increase of about

32 percent over actual sales of 56.5 billion therms of gas in 1953 and about 25 percent over sales of 60 billion therms in 1954.

The A. G. A. Bureau of Statistics recently estimated that between 1954 and 1958, if consumer purchasing power stays at the present level, and if the gas utilities exerted their utmost in sales and promotional effort, a potential market exists for 59 million gas appliances, mainly gas ranges, automatic water heaters and househeating units.

To meet the increased demands for service, the gas industry between now and 1957 will require 4.6 million tons of steel pipe. Of this amount, 2.9 million tons will be in the form of 16-inch diameter or over, primarily used for natural gas transmission lines. An additional 134,000 tons of steel in other forms, and nearly 500,000 tons of cast iron will be required by the industry in the 1954-1957 period.

After getting off to a slow start during the early months of 1954 when our nation was returning to a peace-time economy, production and sale of gas appliances responded to the stimulus of the industry's coordinated promotional programs to equal or surpass 1953 levels.

Sales of gas ranges during 1954 were estimated at 2,010,000 units, slightly under the 1953 total of 2,183,000 units. Sales of automatic gas water heaters rose to an estimated 2,250,000 units, compared with 2,182,000 units sold in 1953.

Sales of central heating appliances showed a marked gain, reaching an estimated 921,000 units, compared with about 800,000 units sold the previous year.

Sales of automatic gas laundry dryers increased about 25 percent over a year ago, totaling about 200,000 units, against 160,000 sold in 1953. Gas incineration is another new gas service that is becoming increasingly popular.

Sales of gas refrigerators are reported to be increasing under the stimulus of new designs and active promotional efforts. All-year gas air conditioning is enjoying a wider market.

Continuing in the vital role of serving the gas industry and gas consumers as a national "recognized testing agency" for gas appliances, the A. G. A. Laboratories in Cleveland and Los Angeles were the scene of expanding activities throughout 1954, reflecting the steady gains in design development, production and sales of gas equipment.

The Laboratories tested almost 6,000 individual appliances and accessories in 1954. Comprehensive testing insured compliance of gas equipment with industry standards of safety, performance and durability. The Laboratories' Seal of Approval serves as a reliable customer buying guide and is carried by 95 percent of all gas equipment sold today. More than 700 field and factory calls were made by field inspectors on equipment manufacturers prior to granting or renewing certification.

In step with the record-breaking testing activity, the Laboratories have engaged in an extensive building expansion program. Administrative offices in a recently erected south wing addition were occupied early last year. To meet the upsurge in testing of central heating equipment, a 17,800 square foot north wing addition was occupied at the year end.

ved, in the and revenues. Utilities are now serving approximately 28,000,000 customers

1954 was the tenth anniversary of the gas industry's coordinated PAR Program—Promotion, Advertising and Research. Two and a half million dollars have been spent during this year on PAR activities to help make gas utility and pipeline operations safer, more profitable and to impress on the American public the convenience and economy of modern gas appliances.

Outstanding accomplishment was the production of a color film under the joint auspices of PAR and the National Association of Home Builders. Various equipment manufacturers likewise cooperated in this production, "A Word to the Wives", which depicts dramatically the wonders of the New Freedom Gas Kitchen and Laundry. Featured is a professional Hollywood and Broadway cast. The film will be shown by TV stations throughout the country and will be available for local showings from gas companies and NAHB chapters.

Tremendous interest was also aroused in laboratory gas range development units made at the A. G. A. Laboratories and shown to utility and appliance manufacturer executives. These units feature greater cleanliness, cooler kitchens and improved performance of top units, ovens and broilers. Adaptation of several of these laboratory developments are now being made by leading manufacturers with the expectation that they will be available to sales floors during 1955.

PAR advertising

During 1954, PAR likewise continued its national magazine advertising extolling the many advantages of gas service and gas appliances. Striking ads to pre-sell residential, commercial and industrial consumers on the many benefits of gas appeared in such magazines as *The Saturday Evening Post*, *McCall's*, *Better Homes and Gardens*, *Woman's Home Companion*, *Time* and many others. Over 30 million sales messages financed by PAR thus reached the American public in 1954. Many of these advertisements were scheduled to coincide with corresponding local promotional campaigns of gas companies throughout the country.

For the first time in 1954 PAR, on behalf of gas companies in 22 states, was a principal sponsor of the "Mrs. America" contest. The annual winner, typifying the year's leading American homemaker, is thus closely associated in the public's mind with the use of gas service in the kitchen and laundry of today's modern American home. So successful was this initial sponsorship that it's being continued in 1955. Already local gas company participation exceeds that during 1954 with state contests in 31 states to be conducted by gas utilities.

Also in the offing for 1955 is greatly accelerated PAR research on gas air conditioning. Many housing authorities are convinced that all-year home comfort cooling will be demanded within the next ten years by most new home purchasers. Already providing good equipment, the gas industry expects and is determined to be ready to provide this coming

Sales and revenues

TOTAL GAS UTILITY INDUSTRY CUSTOMERS, SALES AND REVENUES

1954 Compared with 1953 (Preliminary)

	1954	1953	Percent Change
CUSTOMERS (at December 31)			
Residential	25,806,200	25,120,000	+ 2.7
Commercial	2,076,700	2,000,000	+ 3.8
Industrial	111,400	108,400	+ 2.8
Other	28,100	26,100	—
Total	28,022,400	27,254,500	+ 2.8
CUSTOMERS (Average)			
Residential	25,426,000	24,649,900	+ 3.1
Commercial	2,012,900	1,926,100	+ 4.5
Industrial	110,400	106,500	+ 3.7
Other	27,100	25,400	—
Total	27,576,400	26,707,900	+ 3.3
SALES (Thousands of Therms)			
Residential	19,613,600	18,037,400	+ 8.7
Commercial	5,469,500	4,982,000	+ 9.8
Industrial	32,805,000	30,389,500	+ 7.9
Other	2,859,200	3,057,900	—
Total	60,747,300	56,466,800	+ 7.6
REVENUES			
Residential	\$1,761,179,000	\$1,574,757,000	+11.8
Commercial	383,574,000	339,013,000	+13.1
Industrial	800,193,000	739,409,000	+ 8.2
Other	68,043,000	66,080,000	—
Total	3,012,989,000	2,719,259,000	+10.8

NATURAL GAS CUSTOMERS, SALES AND REVENUES

1954 Compared with 1953 (Preliminary)

	1954	1953	Percent Change
CUSTOMERS (at December 31)			
Residential	20,213,000	19,229,000	+ 5.1
Commercial	1,667,000	1,564,000	+ 6.6
Industrial	82,000	76,000	+ 7.9
Other	26,000	24,000	—
Total	21,988,000	20,893,000	+ 5.2
CUSTOMERS (Average)			
Residential	19,732,000	18,386,200	+ 7.3
Commercial	1,594,000	1,476,700	+ 7.9
Industrial	80,000	73,600	+ 8.7
Other	25,000	22,700	—
Total	21,431,000	19,959,200	+ 7.4
SALES (Thousands of Therms)			
Residential	17,486,700	16,017,800	+ 9.2
Commercial	4,991,800	4,486,900	+11.3
Industrial	32,132,800	29,671,000	+ 8.3
Other	2,830,100	3,018,600	—
Total	57,441,400	53,194,300	+ 8.0
REVENUES			
Residential	\$1,420,493,000	\$1,239,524,000	+14.6
Commercial	311,973,000	265,604,000	+17.5
Industrial	745,908,000	682,136,000	+ 9.3
Other	65,271,000	62,856,000	—
Total	2,543,645,000	2,250,120,000	+13.0

mass market with even better all-year gas air conditioning equipment.

This service will not only make available to Americans hitherto undreamed of comfort throughout their home and not merely in a few rooms, but it will also be welcome additional business for the gas companies during the customary slack summer months.

During the year, ten gas companies in strategic areas of the U. S. designated part of their service territory as Action Demonstration cities under the Gas Industry Development Program, which was launched in 1953 to strengthen the competitive position of gas as a major domestic fuel. The designated cities were: Lincoln, Neb.; Lansing, Mich.; Abilene, Texas; Ocean City, N. J.; Fort Wayne, Ind.; Altoona, Pa.; Savannah, Ga.; Pasadena, Calif.; Albuquerque, N. M.; and Springfield, Massachusetts.

The companies serving these cities are undertaking their own experiments, providing sales, promotion, operating and servicing policies. Those experiments which prove successful in these territories presumably will be applied to the rest of the company operations. Also it is expected that other companies

will be spurred to similar activities by results from these ten Action Demonstration cities.

The ten companies already are reporting much better appliance sales results for themselves and for local dealers than would have been accomplished otherwise. All of the companies concerned are so impressed with the results that they are continuing the action programs next year and are using the successful activities throughout their entire systems. This work has been aptly phrased by one leader in the industry as "an example and inspiration to the rest of us".

The gas industry is marching steadily along the road to improved services, sales and utilization. Important new developments in gas appliance design hold a promise of modernity that cannot be matched by competitive appliances. New sales and merchandising techniques developed under the Action Demonstration programs are bringing bigger shares of the new home market and the replacement market. The industry is alert to competition but not awed by it. Such favorable attitudes must result in new records in sales, customers and revenues in 1955 for the gas industry.

"Mrs. America" appearances here and abroad spurs interest

a PAR activity

TRAVELING AROUND Europe, appearing on television, backing the CARE Food Crusade, visiting conventions—the current Mrs. America is keeping herself in the public

eye and adding prestige to the contest.

Mrs. Wanda Jennings has just returned from a four-week trip through Europe. Her trip was tied in with the worthwhile cause of CARE.

Just before she left she appeared on Arlene Francis' NBC television show "Home."

She'll be at the Pennsylvania Gas Association sales clinic January 28 in Philadelphia, and later on in the spring will appear at the Pennsylvania Master Plumbers' annual convention in cooperation with U.G.I. and the John Wood Company.

She's a busy girl! All the work she is doing—and all the publicity she is getting—mean a better-known and bigger contest this year for the gas industry.

Her European tour (one of her prizes for being named Mrs. America) took her to England, France, Denmark, Germany, Austria, Switzerland, Italy, and Scotland. She visited homemakers, nursery schools, hospitals, and women's clubs. International News Service covered her trip closely, sending back stories every day to its member newspapers in the United States, which ran them with regularity.

Pictures appeared in newspapers all over the country showing Mrs. Jennings getting a cooking lesson from a famous French chef in Paris, and getting a recipe for Yorkshire pudding from an English housewife she visited to compare notes about homemaking differences in the two countries.

The English and American housewives found very little difference in their housekeeping methods and way of life, except for the lack of labor-saving appliances in the English home.

"English housewives certainly would envy my modern kitchen with all its new appliances," says Wanda Jennings, who won a complete New Freedom Gas Kitchen and Laundry when selected as Mrs. America.

Cameras followed Mrs. Jennings to Hamburg, where with the aid of the gas company there she showed the Hamburgers how to cook hamburgers.

"Gas cooking predominates throughout all Europe," Mrs. America reported after inspecting kitchens in eight nations. "However, the gas ranges are much smaller in all countries, with just two or three burners. Most have very small ovens and just a few open broilers, which Americans would find very inadequate. There are no such things as garbage disposals or deep freezers for the home."

Her trip received added prestige when the CARE organization, hearing about her travel plans, asked her to aid their December Food Crusade by lending her support. Before she left the States, she made a one-minute television film for CARE in which she urged people to join in the Food Crusade. This film was shown throughout the nation while she was away. Abroad, she visited CARE missions while newsreels and photographs were taken for publicity.

The day before Mrs. Jennings left for Europe, she appeared with Arlene Francis on the "Home" television show. Miss Francis chatted with the contest winner and then showed an eight-minute film that had been taken previously in Mrs. Jennings' St. Louis home.

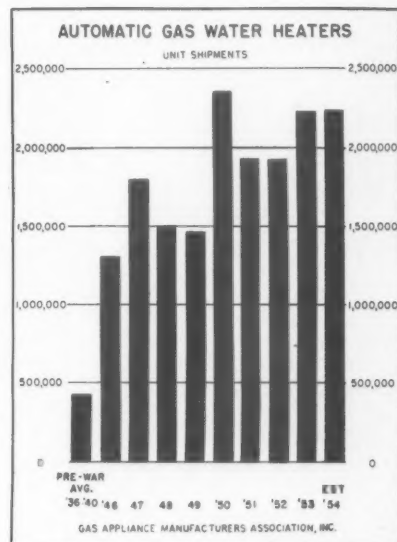
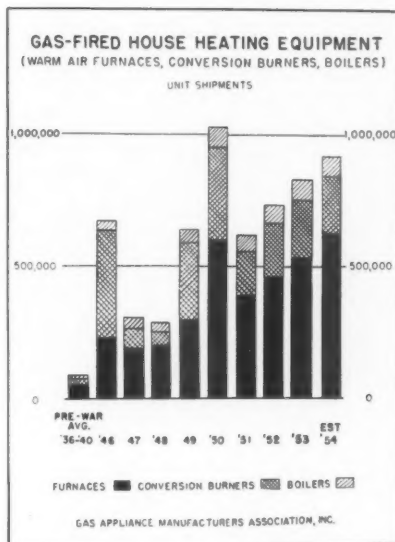
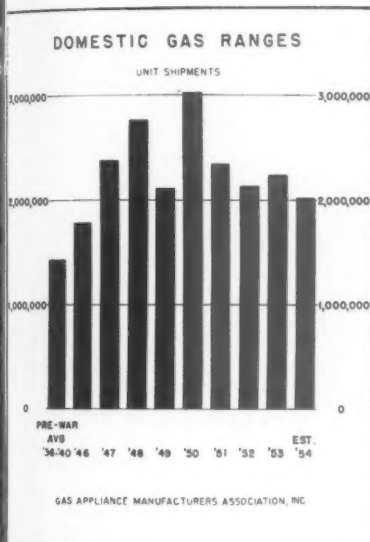
Part of the film showed Mrs. America in her all-gas kitchen, using the appliances she had won. In her running commentary given as the film was being shown, Wanda Jennings gave quite a few plugs to gas and gas appliances.

The current contest to select Mrs. Jennings' successor as Mrs. America has already been launched. The number of entries already received and the broad scope of A. G. A., gas company, and gas appliance manufacturer sponsors plans, promise to make the contest bigger and better than last year.



Lovely Wanda Jennings, "Mrs. America", views European scenes during recent tour. Part of her prizes, trip also enlivens interest in 1955 contest, again sponsored by A. G. A.

Sees appliance sales rise in '55



By T. T. ARDEN

President
Gas Appliance
Manufacturers Association
Executive Vice-president
Robertshaw-Fulton Controls Co.

If the combined gas appliance industry doesn't do 10 percent more business in 1955 than in 1954 it won't be for lack of opportunity.

To begin with, various authorities in government and in private and public home-building agree that the new year will see all-time records set in home construction.

Besides the possibility that more than 1,300,000 new homes will be built, there is a great opportunity for us in the fact that Americans will spend better than \$6,250,000,000 on rebuilding old dwellings, adding living space, modernizing kitchens, laundries and basements, and generally providing the

setting for a huge replacement market for appliances.

I see where GAMA headquarters figures that by the end of 1955 there will be at least three major uses of gas in the average home where only one existed in 1945. One of the main reasons for this, besides the fact that public acceptance of gas is increasing annually, is that many major builders and realty operators have begun to install the entire "family" of gas appliances as standard equipment.

Perhaps the best clue to our immediate future is the action taken by manufacturers, distributors and dealers in the final quarter of 1954 to replenish low inventories. It took more than wishful thinking to bolster their confidence.

Another sign of the times is the beginning of a return by many gas utilities to their former status as aggressive merchandisers of gas appliances. Ap-

parently many of those who left this field several years ago to concentrate on building their fuel distribution systems and converting to natural gas are now going back to direct selling of gas appliances or closer sales cooperation with dealers.

Still another healthy sign is the tremendous demand being made by manufacturers on the industry's laboratories for approvals, improvement of present products, and extension of new-products research. The fact of the matter is that A. G. A. Laboratories at Cleveland and Los Angeles tested almost 5,000 appliances and accessories in 1954 and the rate of application is increasing constantly.

It should also be noted here that the new American Standard National Plumbing Code, which GAMA helped formulate, will begin to have a beneficial effect on appliance sales during 1955. Its purpose is to simplify installations of comfort heating, water heat-

ing, cooking and other domestic gas equipment.

Opportunity beckons on other fronts, too. Early in 1954 the natural gas utilities and pipeline companies planned to spend \$3,551,000,000 during the 1954-57 period, including \$1,708,000,000 for transmission and \$1,331,000,000 for distribution. In addition, their plans called for expenditure of \$364,000,000 for piping other types of gas, for a grand total of \$3,915,000,000.

Well, it's a matter of record that these plans are being realized right on schedule. As to what they mean to the gas appliance industry, consider the findings of a utility study begun in 1953.

This study showed that by 1957 the number of residential gas customers throughout the United States would increase 12.3 percent, while the amount of gas consumed would rise 45.2 percent. The much higher figure for gas consumption meant that people not only would continue to convert to gas, but also would use gas for more purposes in the home than ever before.

The househeating branch of the industry certainly has been making this prediction look good. Comparative records show that 1954 sales of gas central heating equipment were running 14 percent ahead of 1953, while the sales

of oil burners, the nearest competitor, had fallen 13 percent behind 1953 figures.

It is now reasonable to expect that gas-heated homes will total 15,000,000 by the end of 1955 and will exceed 17,000,000 by the end of 1957. Meanwhile, incomplete returns on shipments of gas ranges, water heaters and central heating equipment in 1954 indicated that the total in these categories alone would top the combined total of 5,164,900 units shipped in 1953.

In addition to the rosy outlook in urban markets, there is the possibility of a banner year for gas appliances in the rural territories. The number of domestic, commercial and industrial users of LP-Gas is likely to reach a new high of over 7,500,000, and there is good reason to believe that the ratio of rural to metropolitan appliance sales in 1955 will increase substantially. Rural customers already absorb nearly 25 percent of our output.

The use of gas for commercial and industrial purposes continues to zoom. It's no secret that gas cooking now accounts for 95 percent of the more than 65,000,000 meals served daily in public eating places and institutions and, if the announced programs of highway and institutional construction go ahead on schedule, the commercial equip-

ment producers are certainly headed for new heights.

A utility survey begun in 1953 indicated that industrial demand for natural gas would increase nearly 30 percent during the four-year period ending in 1957. A good part of that gain already has been achieved, and research continues to add many new processes to the more than 25,000 existing uses for gas in industry. The biggest percentage gain in industrial demand is expected to materialize in New England, while the largest gain in actual consumption may occur in the four-state region of Arkansas, Louisiana, Mississippi and Texas.

With opportunity banging at every door, all branches of the industry are stepping up their promotional efforts, and the outlook in this respect—as typified by developments in the Gas Industry Development Program—is for closer cooperation among manufacturers, pipeliners and utilities, than has ever been accomplished.

The industry's own prospects are, of course, irrevocably linked with the general outlook for the nation. But it doesn't take an expert to prove that our present national economy is made to order for any industry with a good product and a proved capacity for public service. The gas appliance industry would appear to qualify.

New Bridgeport brass plant depends on gas-fired furnaces



Herman W. Steinkraus (right), president of Bridgeport (Conn.) Brass Co., and Ronald Malony, president of Bridgeport Gas Light Co., inspect gas-fired bright annealing furnaces in brass company's new tube mill. Brass or copper tubing is put into furnace to make it flexible for coiling and bending

THE BRIGHT future of American industry is being reflected in copper and brass as the Bridgeport Brass Company starts production in a new tube mill stretching three blocks along the Pequonnock River in the industrial heart of Connecticut.

Modern draw benches with capacities up to 100,000 pounds will draw three or more lengths up to 125 feet, a striking contrast to the old benches with their 25-foot maximum lengths.

Straight line production is incorporated and the latest gas annealing equipment capable of annealing 38,000 pounds of brass and copper tube holds key positions in the production lines.

An important part of the new plant's furnace equipment is a radiant tube roller hearth furnace which will bright-anneal 5000 pounds of copper tubing per hour. This represents radical increase in production over previous mills where the product was measured in hundreds rather than thousands of pounds per hour.

Four direct gas fired furnaces, which will consume 75,000 Mcf per year on a three-shift basis, provide close temperature control necessary for uniform brass pipe.

Record LPG gains in '54

By GEO. R. BENZ,
PAUL W. TUCKER
and W. F. DeVOE

*Phillips Petroleum Company
Bartlesville, Oklahoma*

Sales of liquefied petroleum gas passed another milestone in 1954 with a healthy increase in volume over 1953. The outlook for 1955 appears even better with general upturn of business conditions.

Sales of LP-Gas for domestic and motor fuel purposes in 1954 are estimated at 3,250,000,000 gallons. This represents an increase of 9.2 percent over comparable 1953 sales. As usual the domestic and motor fuel market is the largest segment of total sales and it was gratifying to see this increase where some other industries noticed a levelling-off this year.

However, the shorter and milder winter which characterized the winters of 1951-52 and 1952-53 again prevailed and served to limit sharply larger increases in this category.

The summer sales did not hold up as well as they have in previous years due to the following reasons: The usually heavy irrigation load (fuel for the pumping units) did not start until late in the summer; and sales of LP-Gas for tractor fuel were off due to the extreme drought which sharply curtailed the use of tractors.

House heating doubtless remains as the biggest single potential load-builder. House heating with LP-Gas is moving north. House heating in the cooler regions does call for larger storage, both dealer and customer.

It is estimated that 402,000 LP-Gas ranges were shipped during the year. This is a decrease of approximately ten percent from the number shipped in 1953.

Sales of automatic LP-Gas water heaters are estimated at 274,500 or about 3.7 percent under those of 1953. The shipments of LP-Gas fired floor, space and wall type furnaces this year were almost 392,000. This was 28 percent of the total production of this type of gas-fired appliances.

Heating up

LP-Gas fueled warm air furnaces represented eight percent of total (or 50,000) this year. Three percent of the conversion burners shipped during the year were for LP-Gas. This trend was characteristic of the entire appliance industry, both gas and electric, for the year 1954.

Sales of LP-Gas for motor fuel during 1954 showed exceptional gains over 1953 and if it were to be treated separately in this report would exhibit the largest single category increase. As pointed out last year, it is very difficult to separate the quantity of LP-Gas used

as motor fuel from the over-all domestic use. However, it is conservatively estimated that the sales of LP-Gas motor fuel increased 25 percent over last year.

In other words, this use alone amounted to nearly 625,000,000 gallons or over 12 percent of the total sales. There are now over 2,500 buses, 200,000 tractors and untold numbers of trucks and taxicabs operating on LP-Gas. To get the total LP-Gas motor fuel market, one must add that which is used for irrigation, oil and gas well drilling, industrial tractors, lift trucks and refrigeration unit engines in cargo trucks.

Outstanding during 1954 in the LP-Gas motor fuel phase was the interest in converting industrial tractors and lift trucks and engines driving over the road cargo truck refrigeration units.

Probably the most important factor in the conversion of lift trucks is the elimination of exhaust fumes. With refrigeration units, the major factors are elimination of lead fouling of spark plugs and exhaust valve problems that resulted from using gasoline under constant speed, constant load conditions.

Sales for industrial and miscellaneous uses totalled 382,000,000 gallons—up two percent over 1953. It is estimated that because of natural gas pipeline extensions or increased pipeline throughputs the industrial LP-Gas load itself was down slightly from last year. This seems reasonable also when one con-



Cities Service photo

siders that one of the major industrial uses is in heat treating which levelled off last year.

However, the increase in miscellaneous applications more than offset the industrial loss so that the net is up. More industrial "stand-by" plants are being added as a protection against interrupted gas service with consequent shut-down and loss of production.

Gas manufacturing demand or utility use of LP-Gas for 1954 is estimated to be about 208,000,000 gallons or 6.5 percent less than 1953. This is due to the mild winter and the natural gas line extensions or increased throughputs. The latter two reasons are, however, the major ones.

It should be pointed out that in some areas, the demand for LP-Gas for peak shaving showed sizeable increases due to the utilities taking on new house heating loads. The use of LP-Gas "in the mains" at new housing developments continues to be very popular.

Sales of LP-Gas as a raw material for the manufacture of chemicals and chemical intermediates showed only a modest increase of one percent over 1953, with an estimated volume of 977,000,000 gallons. This increase was brought about by an upturn in demand during the final quarter.

Petrochemicals, as a group, made a much greater gain during the year, but most of the gain was due to increased use of methane and ethane in the production of anhydrous ammonia and polyethylene. Petrochemicals used in the textile industry, many of which are produced from LP-Gas, had a slow year and the market for synthetic alcohols and various anti-freeze compounds, also large consumers of LP-Gas, was weak. These decreases were slightly more than compensated for by the requirements of new plants and full time operation of plants built in 1953.

The demand for LP-Gas as a raw material for the manufacture of synthetic

rubber components decreased by over 18 percent so that the total volume is estimated at 317,000,000 gallons. This reduction in the use of LP-Gas for rubber during 1954 resulted from the substantial cutback in synthetic rubber production authorized by the Federal Facilities Corporation.

The LP-Gas industry continues to enjoy a good safety record in comparison with competing forms of fuel and energy. This is due to continuing attention to this matter by all phases of the industry. A new section devoted exclusively to LP-Gas service stations has been added to the NFPA Standard No. 58 for the Storage and Handling of Liquefied Petroleum Gas. Other revisions in the standards have been made to adequately provide for industrial tractors and lift trucks and cargo heating and refrigeration.

NFPA Standard No. 59 which covers Liquefied Petroleum Gas at Utility Gas Plants has been revised for the first time since 1949. Several major municipalities have revised their ordinances to permit and properly provide for the storage, transportation and utilization of LP-Gas within their corporate limits. This is definitely a move forward and should be encouraged.

The production potential of LP-Gas continues to increase despite curtailment in crude-oil production and crude runs to stills at refineries. There were 20 new sources of LP-Gas which were completed or nearly completed in 1954 with a total production potential of over 700,000,000 gallons. This included 19 natural gasoline plants and one major refinery addition.

This increased capacity was not available for the entire year as some of the larger sources were completed near the end of the year. It is estimated that 15 new plants will be added in 1955 with a product potential of upwards of 200,000,000 gallons. The production capacity is available to satisfy large increased demands for LP-Gas.

The storage facilities for LP-Gas are at an all-time high. Storage has been increased at all levels—producing, distributing and consuming. It is interesting to note that percentage-wise, more tanks are being sold in the 500 and 1,000 gallon size. However, with the continued swing to LP-Gas house heating, consumer storage is still too often under-sized to meet the requirements.

The LP-Gas industry in 1954 continued the rapid development of underground facilities for LP-Gas. The 458 million gallons of underground storage in use at the end of 1954 exceeded storage in use a year earlier by 212 million gallons, a gain of approximately 86 percent. At the year's end an additional 250 million gallons of storage was under construction or proposed.

Sales of LP-Gas for export are up again about 30 percent totalling 38.5 million gallons. New extraction facilities have been proposed for Canada, Mexico and England but are not yet in operation. These plants may affect the export market, however, the demand is on the upswing and the foreign LP-Gas market is bright.

The gain in LP-Gas sales for 1954 was a healthy one although not equal to the phenomenal gains of earlier years.

The house heating market offers one of the greatest potentials for large volume increases in LP-Gas sales. The motor fuel market is expanding and achieving wider acceptance. It also offers great possibilities for increased volume. The air conditioning field offers a growing market for year-around air conditioning using gaseous fuels.

In view of the increasing sharp competition in the fuel market, the LP-Gas industry must step up its sales efforts and render the best possible service to its customers to continue to enjoy substantial gains each year. With such increased effort and the general upturn of business activity, 1955 looks promising for the LP-Gas industry.

Pennsylvanians hold A.G.A. safety course in Pittsburgh

AMERICAN GAS Association's new two-day safety course for gas utility supervisory personnel, "Accident Prevention Through Informed Supervision," was sponsored by the Pennsylvania Natural Gas Men's Association in Pittsburgh December 1 and 2. This marks the first time the course has been featured by a regional industry association.

Forty-one students—district foremen and superintendents from six western Pennsylv-

nia companies—took the course, under a teaching staff consisting of Raul N. Papich, A. G. A.'s safety consultant, Leo R. Nuhfer, safety director of The Peoples Natural Gas Co., J. B. Hall, safety director of Equitable Gas Co., and Charles Cummings, safety director of Hope Natural Gas Co. In addition to Equitable and Peoples, gas companies sending men to the training sessions were The Manufacturers Light & Heat Co., Pennsylv-

nia Gas Co., Carnegie Natural Gas Co., and New York State Natural Gas Company. The United Gas Improvement group also sent one student to observe the course in anticipation of sponsoring sessions in Philadelphia.

After "school was out," PNGMA President Fred N. Wolf, engineering vice-president of Equitable Gas, said the Association considered sponsoring the A. G. A. safety course "one of our most worthwhile projects."

New ranges for old in schools



Along with modern gas ranges placed in New Mexico schools go Southern Union Gas home service girls to see that their full cooking potential is realized. Home Service offers full cooperation to teachers



Installation of ranges like one above often sparks complete modernization of school's classroom cooking facilities. These projects sometimes become community affairs as students and parents cooperate

"We don't have the money." You've heard these words—every school teacher in the country has spoken them at one time or another.

In this case, however, the school happened to be in New Mexico. The department involved—home economics. And—a Southern Union Gas Company home economist happened to be visiting in the school. This remark was the cue she needed to introduce Southern Union's Modernization Program.

The gas company's present program has been in effect since the fall of 1950. In the course of its existence, the program has furnished the means for modern home economics equipment and teaching methods in more than 53 of New Mexico's public and private schools.

Southern Union provides the newest, most modern gas ranges—installed, serviced and demonstrated in these schools completely free of charge. Most times,

the institution of the program is just the beginning. Like Topsy, improvement seems to "jest grow."

In the case of the school mentioned above, the home economics classroom consisted of one gas range, two long, high tables, a refrigerator, a sewing machine and not over six pieces of baking equipment. With the permission of the superintendent, the home economics teacher and Southern Union's home service department began making plans.

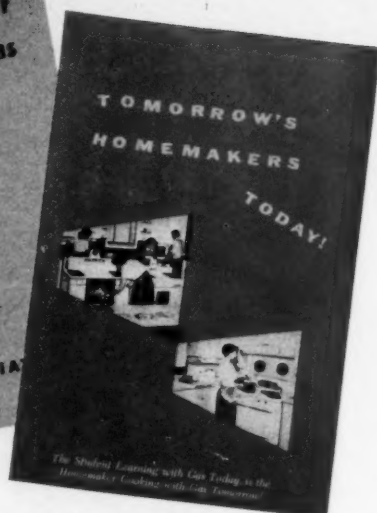
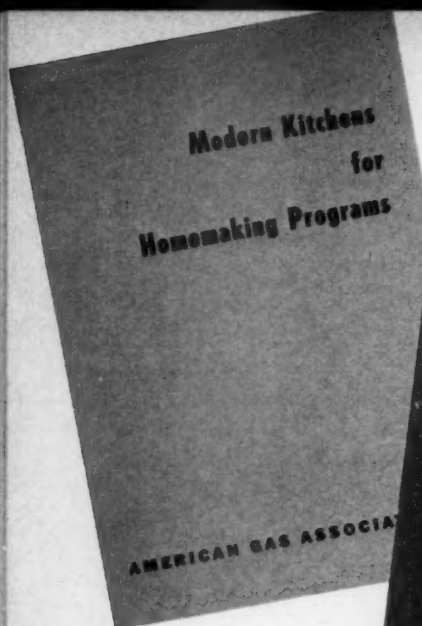
Southern Union immediately installed two new, completely automatic gas ranges. Next, the school's manual training department was called in. Several sessions resulted in an interesting and practical project for the manual training students. They set to work moving desks out, cutting tables into thirds, and sawing off overlong table legs.

The home economics girls made candy and sold it to the students, using the money to help buy kitchen equipment.

School mothers donated dishes, made pot holders and furnished many other necessary items. The result was a four-unit kitchen, with fully automatic modern gas ranges.

Home economics teachers in communities serviced by Southern Union are being spared the dilemma of demonstrating modern methods of cooking on ancient "meat burners" as rapidly as the gas company can introduce its Modernization Program. More and more of the state's colleges and private schools are adopting the program.

By November 1954, Southern Union had placed 125 gas ranges in New Mexico schools. The agreement between the school and Southern Union Gas Company is in effect for five-year periods, assuring the home economics classes of having the most modern cooking fuel equipment and methods—a forward step in today's progressive education. Gas refrigerators may be purchased by the



Two booklets above are of interest to companies engaged in school modernization programs. Aimed at home economics teachers, "Modern Kitchens for Homemaking Programs" is a comprehensive guide to classroom installations. Published by A. G. A. Home Service Committee, 15c per copy. The other booklet contains results of a survey of school range replacement programs conducted by A. G. A. member companies

school through Southern Union at a considerable discount.

The gas company's home economists visit the schools and discuss with the home economics teacher and the superintendent or principal the type and installation of equipment necessary to do the job. This information is then passed

on to the company's town plant manager and sales department.

Usually the school's food laboratory is remodeled, so that it becomes a one, or several, unit kitchen. After the installation of the necessary number of gas ranges, and at the request of the teacher, Southern Union home econo-

mists visit the classes. In a one-hour period, films devoted to kitchen planning, cooking techniques and gas company operations are shown. A cooking and baking demonstration is then followed by discussion.

Students often request that their parents be allowed to "sit in" on the movies and the demonstrations. And Southern Union's home economists are called on many times to give talks at Career Day Programs for the benefit of girls interested in home economics careers.

Teachers are enthusiastic over Southern Union's School Modernization Program. It offers the student first-hand knowledge of "what's cooking" in the latest conveniences, besides teaching her how to prepare food on the type of range she may be using in the future.

As one teacher remarked, "As long as you're going to think modern, why not be modern?" Another said the students are more interested and eager to learn when working with the new, easy-to-clean, fully automatic gas ranges.

The University of New Mexico, Albuquerque, and Eastern University of New Mexico, Portales, are among the New Mexico colleges now taking advantage of Southern Union's School Modernization Program.

This year, Southern Union Gas Company is celebrating its 25th anniversary of public service, with 31 towns in the state of New Mexico comprising a major part of the gas company's four-state system.

Ebasco lauds client companies for safety

THE EBASCO Silver Plaque for outstanding achievement in safety was awarded to the Chattanooga Gas Company for an injury index 89.45 percent below the national average for the 1953-1954 award year. H. H. Scaff, vice-president of Ebasco Services, Inc., presented the plaque at a meeting of Ebasco client company executives in New York on November 30. MidSouth Gas Company and West Tennessee Gas Company were awarded certificates of achievement for injury indexes 40.94 percent and 70.08 percent, respectively, below the national figure.

The Ebasco Award for an injury index 94.75 percent below the national average was presented to Texas Power & Light Company. Other companies receiving achievement certificates for bettering the National Injury Index by more than 25% were: Dallas Power & Light Co., Carolina Power & Light Co., Pacific Power & Light Company and Columbus Transit Company.

In the Ebasco International Division, the

Gold Plaque was awarded to Compania Nacional de Fuerza y Luz in Costa Rica for an injury index 78.86% below the U. S. national average, and the Silver Plaque to Empresa Electrica del Ecuador for an injury index 35.46 percent below the U. S. national average.

The Ebasco Award Plan was inaugurated in 1948 to stimulate accident prevention work of client organizations, to secure increased executive participation and interest, and to pay tribute to those companies maintaining low accident records. Under the terms of the award program, every client company that achieves an injury index 25 percent or more below the national average for the industry of which it is a part receives an award. The two companies whose indexes are the greatest percentages below the national average receive the gold and silver awards, respectively. The injury index is computed as the frequency rate plus ten times the severity rate.



P. J. Falk, president of West Tennessee Gas Co., accepts Ebasco Safety Achievement Certificate from H. H. Scaff, Ebasco Services, Inc.

Venting in small utility rooms

a PAR activity

The principles and various methods of supplying air to gas appliances in small utility rooms for effective combustion of the fuel and ventilation of the enclosure are outlined in a recent publication by the A. G. A. Laboratories.

Published as Research Bulletin No. 67, "Combustion and Ventilation Air Supply to Gas Equipment in Small Rooms", the bulletin provides factual information of major interest to architects, equipment installers, servicemen and others. It outlines the solution to practical problems encountered with various methods of air supply including passageways from outside the dwelling, from crawl spaces and from unoccupied attic spaces.

The study was conducted as PAR Project DA-2-HA sponsored by the Association's Committee on Domestic Gas Research.

Fuel burning appliances require air. They require air for effective combustion of the fuel, for relieving excessive flue updrafts, for cooling of appliance jackets and adjacent wall, for ceiling and floor surfaces, and for the ventilation of the area in which the appliance is installed.

Air is attracted to the appliance by the heat released during the combustion of the fuel. The draft of hot gases in the combustion chamber draws in fresh combustion air and when the combustion products are discharged from the appliance into the vent system, air is drawn in through the relief opening of the draft hood to dilute the flue products. The heat dissipated to its external jacket causes ventilation air to flow toward, then away from the appliance.

Thus, a free flow or adequate air supply is necessary to insure that fuel burning appliances will function properly.

The source of air supply, the quantity of air needed, how it is brought to the appliance, and how any excess heat is

removed by ventilation, all have an important bearing on the performance of the appliance. Since domestic heating appliances are used to improve the comfort or utility of a dwelling, reducing possible discomfort due to drafts or excess air velocity while providing adequate air for satisfactory appliance operation must be considered.

During the Laboratories study of this subject, a high-boy type forced warm air central furnace with built-in draft diverter, a 30-gallon automatic, under-fired, insulated, storage type water heater

and a vented clothes dryer with blower were installed in a completely instrumented "typical" appliance room enclosure of 330 cubic feet.

Observations of the conditions which existed in the enclosure during operation of an appliance when using various arrangements to introduce the air supply into the enclosure are detailed in the bulletin. These arrangements included natural draft means, powered draft systems and sealed or "snorkel" draft arrangements, the latter condition being

(Continued on page 23)



Velocity of air around gas equipment is measured by A. G. A. Laboratories technician as part of study of air supply required for appliance operation in small utility rooms

Beautiful kitchen and laundry displays (such as one at right from Parents' magazine) are available through new special purchase plan



New kitchens— key to sales!

a PAR activity

In 1955 over \$750 million will be spent on kitchen remodeling. New home construction is expected to exceed this year's record of \$30 billion.

A recent survey by a major opinion publication indicates that the kitchen is the potential home buyer's number one point of interest.

The national kitchen cabinet manufacturers working with the gas industry's New Freedom Gas Kitchen and Laundry Program have been quick to realize the importance of working with the gas companies on both the new and remodeled kitchen market.

Youngstown Kitchens has alerted all its distributors to a particularly advantageous cabinet dealer-gas company plan of cooperation. Republic Steel Kitchens, now second in U. S. kitchen cabinet volume, is seeking more and more active affiliations between gas companies and its dealers across the country. A number of other New Freedom Cabinet manufacturers have had a continuing program of cooperation with gas companies.

The advantages to gas companies co-

operating with these cabinet manufacturers are numerous. With gas built-in ranges coming into such prominence (there are more than ten gas range manufacturers either in the built-in field or about to enter it) gas companies need well designed displays to show these attention-getting built-ins on their sales floors.

There are no gas appliance manufacturers who can supply us with a full kitchen line or "kitchen package" including cabinets. We must depend upon these national quality cabinet manufacturers to furnish us attractive traffic-stopping kitchen and laundry display backgrounds for gas appliances.

A majority of the New Freedom Cabinet manufacturers have aggressive builder programs with promotion and advertising and heavy participation in home shows. They are constantly keeping their product in the attention of major home builders.

Since few, if any, of the New Freedom cabinet manufacturers produce appliances, they need to secure these items from some outside source. Just as the New Freedom Bureau has supplied this

need nationally, so the gas company stands in an ideal position to supply the need locally.

The majority of these independent cabinet manufacturers would prefer to show gas appliances in their advertising and promotion. Every time they show an electric appliance there is a possibility that they are generating a lead for the electric appliance manufacturers, who compete with them in the cabinet field. Once a personal contact is established, it is generally easy to furnish gas appliances for the complete kitchens and laundries pictured in their ads and promotion material.

With the new home market of such great importance, gas companies are taking more and more space at home and builder shows. Results at both national and local shows have proved that gas appliances in a kitchen and laundry display attract more attention than simple displays of row upon row of gas appliances.

This provides another opportunity for an alliance with the independent cabinet manufacturers. By mutual agreement the cabinet manufacturers can show gas



Displays available through A. G. A. New Freedom Kitchen and Laundry Bureau are suitable for all areas. McCall's above needs 10 by 12 feet



Kitchens such as one from *Better Living* magazine place gas appliance in best setting, capitalize to fullest on sales floor space



Public interest in built-in units can be stimulated by displaying this American Home kitchen, provide close link to builders

appliances in their space and the gas company can reciprocate by showing in their space the cabinets of cooperating cabinet manufacturers. Or a direct gas company-gas appliance dealer subsidy of cabinet dealer kitchens showing gas can be arranged. In either case more attention will be drawn to gas appliances in ideal kitchen and laundry settings.

Many gas company people have felt that our industry is at a disadvantage because we have no "full line" kitchen manufacturer—that is, no manufacturer who produces a full line of gas appliances and cabinets such as our largest electric competitors. Actually, this is an advantage. This situation allows the gas company complete freedom in working with any cabinet manufacturer the builder prefers.

By cooperating in the builder field with an aggressive cabinet dealer or distributor, you can offer the architect or contractor a "full line" of cabinets and appliances—a complete "kitchen package". The immense gas company demand for A. G. A.'s "Good Kitchens Sell Houses" for use by gas company builder contact men has already attested to the

success many gas companies have had in working with the local New Freedom Kitchen Cabinet dealers.

A. G. A.'s New Freedom Bureau will continue in 1955 to promote actively national magazine all-gas home promotions. Gas companies can benefit by tying in with these promotions locally.

In the spring, the New Freedom Bureau will make available the names of the builders participating in *Better Homes & Gardens* September home promotion. We expect *Parents' Magazine* to work with us again this year in making available to their readers an all-gas "Expandable Home for Growing Families" for gas company-builder duplication locally.

Woman's Home Companion plans to feature editorially a "Blue Flame Home" designed by one of the nation's leading builder architects. Plans of this Blue Flame Home will be made available well in advance of spring-starts so that gas companies can tie-in an outstanding builder in each area to cash in on this editorial support for a Blue Flame Home by one of the nation's leading women's magazines.

Only homes featuring the seven residential uses of gas can use the title "Blue Flame Home." Registration of name has been applied for.

One of the most successful Blue Flame Home promotions put on by a utility in 1954 is outlined below:

1. An outstanding quality builder in the area was chosen.
2. The supporting gas appliance manufacturers (of the seven uses of gas) were drawn into the promotion to assure full support.
3. The utility coordinated all efforts.
4. A large department store was brought in for decoration and further promotional support.
5. A powerful means was chosen to reach the public. In this case a leading Sunday paper supplement was devoted to the Blue Flame Home.
6. A press preview party was held with the builder.
7. The beautiful modern all-gas home in a lovely natural setting was easily accessible to the city and was open to the public for six months.

(Continued on page 40)

FPC on field prices, allocations

BUREAU OF STATISTICS

American Gas Association

In a recent rate decision of the Federal Power Commission, (opinion 278), El Paso Natural Gas Company was ordered to reduce the amount of a proposed annual wholesale gas rate increase from \$13.3 million to \$10.2 million, based on the test year 1952. Because of its possible effects upon future rate hearings this decision has been written up in greater detail for our readers' interest.

El Paso was allowed to include in its cost of service the "current field price" of its own production. The Commission, although it permitted the \$5 million claimed by El Paso to be the "current field price" of its own production stated that it was not now prepared to state that the "field price" or the "rate base", or some other method of determining the company's cost of production was most appropriate under present circumstances.

The FPC pointed out that it has initiated proceedings (Docket R 142) in which it has invited views and comments on the question of principles and methods to be applied in regulating the price of natural gas sold by producers in interstate commerce for resale. The FPC intimated that these principles and methods could also be applied to gas produced by transmission companies.

The Commission by a divided vote excluded approximately \$1.0 million from El Paso's cost of service payments. This amount represented what the company had paid under a Texas statute levying a tax on the gathering of gas. The U. S. Supreme Court later declared this law unconstitutional. El Paso contended that it was entitled to include this full amount in its cost of service since this was the amount actually paid and since no part of the tax will be refunded.

The FPC, pointing out that El Paso paid the tax without protest, declared that the company should have recognized the possibility that the statute might be

declared unconstitutional. This could have been done, the FPC said, without entailing any obligation to actively prosecute a suit to have the enabling statute declared unconstitutional, since a number of interstate pipeline systems had instituted lawsuits. The Commission said that it could find no reasonable basis for concluding and providing that the ratepayers, rather than El Paso's stockholders, should bear the cost of this tax.

Commissioner Strueck and Commissioner Digby declared they could not agree with the majority in its action excluding from El Paso's operating costs the amount of the gathering tax paid by the company to the State of Texas. They asserted that El Paso should be permitted to recover this amount since the tax was levied by the Texas legislature, collected by the state, and upheld by the Texas Supreme Court as valid.

"To hold that El Paso was under obligation to pay the tax under protest would be to fail to give full faith and credit to the laws of the State of Texas, which should be presumed to be legal until held otherwise by a court of competent jurisdiction."

Use system-wide method

In allocating El Paso's cost of service between jurisdictional and non-jurisdictional sales, the Commission adopted the system-wide method. El Paso had proposed the use of the "peak responsibility method", with costs classified by functions and zones between demand and commodity costs. El Paso maintained that this method gives effect to load factor, distances of transportation and the facilities used by each customer or class of customers.

The FPC said that as it has previously consistently held, El Paso's facilities constitute an integrated system for the production, gathering, transmission and sale of natural gas. The Commission, therefore, adopted the system-wide allocation method, under which the total cost of

service is distributed to the several functional divisions—production, storage and transmission.

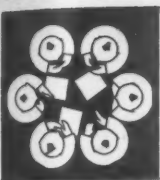
The FPC's staff also presented studies based on a zone method of allocation, which embodied a demand-miles and commodity-miles theory. The Commission rejected this method, which it said is more complex than the system-wide method and interjects numerous controversial questions into the proceeding.

Commissioners Smith and Draper declared that the demand-miles and commodity-miles method with some further adjustment is particularly appropriate for application to the operations and sales of El Paso. Commissioner Smith went on to say that the fixing of the level of rates in the several zones on the basis of historical differentials "with little or no regard to the relative responsibilities for cost incurrence—may result in serious inequities."

Commissioner Smith declared that he regarded the mileage method as an appropriate step in the right direction and as a distinct advance over the system-wide allocations heretofore followed and used by the Commission.

Commissioner Smith further stated that it was "most unfortunate that the Commission has not seen fit to give greater weight here to the most promising alternative to its conventional method of system-wide cost allocation which has thus far been brought forward, and to encourage the further development of rate-making methods which will give more appropriate emphasis to the impact of the distance factor on the cost of natural gas transportation."

The \$13.3 million proposed rate has been in effect, subject to refund, since January 1, 1953. The Commission in its order has directed El Paso to file tariff sheets reflecting the allowed rates within 30 days, to be effective as of November 26, 1954. The new rates affect 27 of El Paso's wholesale customers in Texas, New Mexico, Arizona and California.



Industrial relations round-table

Prepared by
A. G. A. Personnel Committee

Edited by W. T. Simmons
Assistant to the Personnel Manager
Philadelphia Electric Company

● **Interviewing is work**—Personnel men will agree that interviewing employees is "work". Arbitrators point out that it operates the other way too. It's also "work" for the employee who is interviewed, say arbitrators. In fact, if he is required to report in for an interview (for example, on his day off) he is entitled to reporting pay. (He's not entitled to it, say arbitrators, if he comes in voluntarily on his day off.)

In the latest arbitration case on this general subject, piecework employees of International Harvester were granted pay for work when interviewed, during hours, about a coming layoff.

● **Human beings—and organizations**—How do people communicate and work under different kinds of organizational arrangements? That's what a project group at Carnegie Tech's Graduate School of Industrial Administration plans to find out. Professor Herbert A. Simon, director of the three-year project (financed by Ford Foundation), said:

"One of our first purposes will be to examine objectively and scientifically some of the widely accepted, yet contradictory, propositions about how human organizations function. Often, for example, we see a firm undergo a major reorganization to decentralize its activities, only to have a new centralizing reorganization follow within a few years. We have little scientifically based theory or principle in our existing knowledge that helps the executive to decide when and how far to centralize or decentralize. We hope that our research will help to contribute answers to questions of this kind."

● **Picnic must go on**—In the event of a strike, have you ever wondered whether to hold an employee relations affair or to call it off? Goodyear Tire & Rubber Co., Akron, made up its mind to hold its annual picnic this year, strike or no.

Plans were all set for the traditional employee outing on August 2 when contract negotiations broke down. The union went out on July 7, and the plant shut down. Goodyear at once announced in its employee magazine that the picnic would be held anyway.

Strike tension eased on August 2 as 50,000 employees and their families frolicked at the beach along with Goodyear management people. Workers who had come to regard the annual picnic as routine with no

real meaning, went home believing that it was sincerely meant to promote better understanding and friendliness.

● **Court decisions—Arbitration by individual is not allowed under union contract**—An employee can't take matters into his own hands when his union refuses to go to bat for him to invoke rights that are created in a collective bargaining agreement—Federal District Court for Eastern New York.

Individual tried to force company (Voges Manufacturing Company) to arbitrate question, whether he was discharged for proper cause. Employees union District 15 of the A.F.L.'s Machinists refused to arbitrate because they believed insufficient grounds existed to contest discharge.

Court says: Only the parties to the contract have the power to request arbitration. It is the employee or employees who may have a difference with the company. However, it is the employees in their union capacity only who may avail themselves of the "union function" which leads to the possibility of arbitration.

Authority of employer's negotiation—For many years it has been the position of the NLRB that an employer must endow his union contract negotiating committee with what amounts to plenary authority to enter into a binding agreement if he is to avoid a finding of failure to bargain in good faith. Some employers disagreed with NLRB concepts, in this particular, and invited "business risk" consequences in controlling their spokesmen. This problem has now been resolved by the Ninth Circuit Court of Appeals, San Francisco, in the case of Lloyd A. Fry Roofing Co. vs. NLRB, No. 14018, October 13, 1954.

In the above cited case, the employer stipulated that his negotiator might discuss the union's proposal with the union negotiating committee and that he might make recommendations to higher authority as to the disposition of such union proposals. The company's negotiator did not have authority to change the language of the employer's proposals, even on a tentative basis, without prior approval. Upon review of the evidence in the case the Ninth Circuit Court held that, "The failure of the company to invest (its negotiator) with more authority, when considered with all other circumstances shown, did not constitute an unfair labor practice."

● **Arbitration decisions—Management right to restrict parking sustained**—Management has the right to reserve parking space for customers, salesmen, and company officials along the sidewalk in front of a plant, according to Arbitrator George E. Bowles of Michigan, as a legitimate exercise of business discretion.

In an award involving Baldwin Rubber Co.,

Pontiac, Mich., Permanent Umpire Bowles denies the grievance of two employees disciplined for parking in the reserved area. The grievance was processed by CIO's Rubber Workers.

Personal rate and transfer to another job—An arbitrator has ruled that, under a contract providing that "personal rates" shall not be reduced as long as the affected employee remains in the protected classification, such "personal rates" do not follow persons transferring to another job classification. (See International Harvester Co., McCormick Works and UAW-CIO; Case No. 197; David L. Cole, Arbitrator; April 7, 1954.)

● **State supreme court ruling—Minnesota union cannot contract away right to paid voting time**—A union cannot contract away the right of employees to paid voting time staked out in state law, Minnesota's Supreme Court says. And a state law granting paid voting time doesn't conflict with the Taft Act or place an unreasonable burden on employers, the court declares.

Sustaining a fine levied on International Harvester Co., Judge Nelson says a member of Local 763 of CIO's United Auto Workers should not have had two hours' pay deducted for time he took off to vote on election day, November 4, 1952. The deduction was in line with the Harvester-UAW contract, which provides that: "Employees shall be allowed the necessary time off without pay to vote in any federal, state or municipal election."

But a state law grants paid voting time in these terms: "Employees may vote without loss of time. Every employee entitled to vote at an election shall be permitted to absent himself from his work for that purpose during the forenoon of each election day, without a penalty or deduction from salary or wages on account of such absence."

Judge Nelson answers Harvester's argument that by signing a contract giving time off without pay, the union had waived its right to paid voting time. The contract can't waive rights granted individual employees by state statute, he says. The state law has been on the books for over 60 years, and it must be presumed that the contract was made with the law in mind. The state can limit what obligations may be incurred through contract. This limitation isn't in the same category as an impairment or limit on obligation already contracted.

● **NLRB decision—\$3 million is threshold of NLRB jurisdiction in utilities**—The National Labor Relations Board will take jurisdiction over local public utility and transit systems affecting commerce only where such enterprises do a gross annual business of \$3 million or more.



GAS COOKING STOVE, No. 6. Price \$

With important desirable white cast-iron, which, when desired, greater heat under the broiler.

7 in. wide, 7 1/2 in. high, 9 in. deep. With four no. valves or 4 burners. Will grill a whole chicken, broast or fish, roast bread, boil water, or broast only. 2 lbs. of gas (at a cost of less than one cent.) will grill just 4 steaks.

Remember, no other gas grill has white cast-iron.



SEAR DOORING STOVE, No. 1. Price \$
With front tile surface to tile.
Size 24 in. wide, 24 in. high, 2 in. deep.
For roasting, grilling and broiling. If with inside Copper Reflector, 1
Guarantee, of wire for one hour, with 2 in. screen.

Meeting of the Gas Light Companies
OF THE STATE OF NEW-YORK.

To the President of the *Tsing Ling* Sun Light Bunsanmyung

[illegible]

It was **impossible**

Your Ulf Herrmann.

E. W. LEAVESWORTH, STRATTON,
 CHARLES ROOME, NEW-YORK,
 G. G. STEELE, BUFFALO,
 GEO. W. PARSONS, ROCHESTER,
 R. MERRIFIELD, ALBANY,
 Committee

Committee

Dated USA Oct., 1922

From 25 to 40 per Cent. of Gas Saved

RECEIVED

Non-Conducting Lining.

The Cheerful Gas Stove

Has all the appearance of an open fire, without smoke or smell, and is a perfect rest burner.



The above cut is a highly ornamented, an-
tisliding stove, which we are prepared to mount
into the room by reflection from a high
also by radiation from the gas box (not
shown,) the air thus heated passing into
the space above. The products of combustion
are drawn off by a flue at back of stove
with a highly polished brass face
plate.

A perfect ventilator, the air be-
ing drawn into the room. The
stove, and an ornamental piece
for sitting or dining room.

It makes them to connect from

AMERICAN
Gas-Tight Association
CONSTITUTION
AND
LIST OF MEMBERS

OFFICE, 117 BROADWAY
NEW YORK CITY

HARTFORD

HARTFORD.
THE CHAS. LEECHMAN & BROTHERS COMPANY, PRINTERS.
1877.

Add early documents, catalog to archives

By MARY E. AGEE

Librarian

American Gas Association

Three unusual historical items have been acquired by American Gas Association library. They were presented by Warren H. Terry, Jr., a retired engineer from Consolidated Edison Company of New York, Inc., and a former member of A. G. A. Mr. Terry has long been interested in gas industry history and compiled much of the material used in Frederick L. Collins' "Consolidated Gas Company of New York, a History".

One of these unusual items, dated October 25, 1859, is an invitation to the president of the Sing Sing (New York) Gas Light Company to attend a meeting at the office of the Manhattan Gas Light Company, 15th Street and Irving Place, New York City, on November 15, to



organize the Gas-Light Association of the State of New York.

This may well have been the earliest gas association in the United States. A preliminary meeting was held in November 1858, at which time a committee was appointed to write a constitution and plan the organization meeting. This preliminary meeting was described rather fully in *The American Gas-Light Journal*, September 1, 1859, page 8.

"The proposed association will, if established, be beneficial alike to companies and consumers—to the companies, because it will produce a constant interchange of opinion upon all matters connected with the economical management of gas-works, and to the consumers, because it will be the means of cheapening the cost of production, and so enable the companies to lower the price to them."

Apparently some objectives do not change with time.

The same journal reported (December 1, 1859, page 108) that the New York State Association of Gas-Light Companies held their first regular meeting at their rooms in the Manhattan Gas Company's Irving Place building on November 15. Officers were elected and a constitution adopted.

It was also suggested that since the benefits would be incalculable, the program should be enlarged to embrace the entire gas interests of the nation.

Another gift, dated 1877, is the "Constitution and List of Members of the American Gas-Light Association," one of the early ancestors of A. G. A.

The third item is the "Catalogue of the Sun Dial Gas Stoves, Manufactured by the Goodwin Gas Stove & Meter Company". This catalog is undated, but

contains testimonial letters written as late as 1880.

While none of the stoves has automatic single point ignition or oven controls, they do have other conveniences which were no doubt just as important at that time. Many of the gas cooking stoves incorporate two-gallon tinned copper boilers, with brass draw-off taps. Pictured is a wooden pail sitting on the floor under the tap in the process of being filled.

There are movable copper reflectors, presumably used to heat the kitchens in winter. There is a straight gas burner for the fish kettle.

There are several types of room heaters. The "Imperial Ventilating Gas Stove" is a round eight-column radiator. Six types of improved ventilating gas heating stoves sized to heat rooms con-

(Continued on page 40)

Facts and Figures

Prepared by A. G. A. Bureau of Statistics

Shipments of 185,200 automatic gas water heaters during November were 19.5 percent higher than shipments made during the same month a year ago. There were 2,120,400 units shipped during the first 11 months of this year as against 2,040,800 shipped in the comparable cumulative period a year ago, equivalent to a gain of 3.9 percent.

Shipments of 170,500 gas ranges during November were up 7.6 percent over the 158,500 shipped last year and represented the best percentage gain this year. Gas range shipments for the first 11 months of this year aggregated 1,883,600 units, down 8.1 percent from the 2,048,900 units shipped during the first 11 months of last year.

New housing starts of 103,000 units during November continue to set records. Since May, the monthly rate of private non-farm dwelling units started (seasonally adjusted) has been second only to 1950, the peak year of residential construction.

The effects of the boom in new housing have been helping to set new records for shipments of gas-fired furnaces. During November shipments totaled 71,700 units, up an unprecedented 66.4 percent over the 43,100 units shipped a year ago. Gas-fired boiler shipments were up 19.3 percent to 6,800 units while shipments of 14,200 gas conversion burners were down 9.0 percent from the same month a year ago.

The market for central heating equipment as a replacement of competitive fuels is constantly diminishing. This is primarily due to the fact that so many non-gas units have already been converted to gas that the total number of homes still eligible for such installations has declined and the number of conversions will accordingly decline.

Appliance data relate to manufacturers' shipments of the entire industry compiled by the Gas Appliance Man-

SALES OF GAS AND ELECTRIC RESIDENTIAL APPLIANCES DURING NOVEMBER

(WITH PERCENT CHANGES FROM THE CORRESPONDING PERIOD OF THE PRIOR YEAR.)

	NOVEMBER		OCTOBER	
	Units	Percent Changes	Units	Percent Changes
RANGES				
Gas	170,500p	+ 7.6	206,700p	+ 1.4
Electric	n.a.	n.a.	96,400	+14.9
WATER HEATERS				
Gas	185,200p	+19.5	202,000	+ 4.0
Electric	n.a.	n.a.	63,700	- 1.8
GAS HEATING				
Furnaces	71,700	+66.4	77,300	+32.6
Boilers	6,800	+19.3	10,800	+ 6.9
Conversion Burners	14,200	- 9.0	32,200	+22.0

PERTINENT BUSINESS INDICATORS, NOVEMBER

(WITH PERCENT CHANGES FROM CORRESPONDING PERIOD OF THE PRIOR YEAR.)

	No- vember 1954	No- vember 1953	Percent Change	October 1954	October 1953	Percent Change
Industrial activity (1947-1949 = 100)	129	129	—	126r	132	- 4.6
Consumer prices (1947-1949 = 100)	n.a.	n.a.	n.a.	114.5	115.4	- 0.9
Housing starts, Non-farm (thousands)	103.0	81.5	+26.4	106.0	90.1	+17.6
New private construction expenditures (\$million)	2,322p	2,077	+11.8	2,395p	2,154	+11.1
Construction costs (1947-1949 = 100)	142.2	134.9	+ 5.4	141.9	135.1	+ 5.0

n.a. Not Available.

p Preliminary.

r Revised.

GAS SALES TO ULTIMATE CONSUMERS BY UTILITIES AND PIPELINES DURING OCTOBER

(MILLIONS OF THERMS)

	1954	1953	Percent Change
All types of gas	4,510.8	4,295.9	+5.0
Natural Gas	4,303.9	4,087.3	+5.3
Other gases	206.9	208.6	-0.8
Twelve Months Ending October 31			
All types of gas	59,858.2	56,065.2	+6.8
Natural Gas	56,635.8	52,836.3	+7.2
Other gases	3,222.4	3,228.9	-0.2

Index of Total Gas Utility Sales (1947-1949 = 100) 190.0

(Detailed chart on quarterly gas sales appears on next page)

ufacturers' Association. Industry-wide electric appliance statistics are based on data compiled by the National Electric Manufacturers' Association and are reprinted by GAMA in their releases.

Industrial production, after several

months of stability, has turned upward again. The Federal Reserve Board index of industrial production for the month of November is 129, up 2.4 percent over the previous month and even with last year. This is the first time this year that

industrial production was not lower than in the corresponding month of the prior year. Partially accounting for this rise in the production level has been the expansion of auto output and its influence on related industries such as steel and rubber.

Operating revenues of the total gas utility and pipeline industry (including both pipeline sales for resale and distribution company sales for ultimate consumption) for the 12 months ending September 30, 1954 aggregated a record \$4.5 billion, up 10.3 percent over a year ago. Net current income after payment of \$555 million in taxes by the industry was \$434 million, up 7.7 percent over the same cumulative period ending September 30, 1953.

Total revenues of the gas utility and pipeline industry to ultimate consumers in the third quarter of 1954 aggregated \$488 million. This was 8.0 percent higher than the comparable quarter a year ago. There were 27.2 million gas customers (plus approximately 275 thousand consumers receiving liquefied petroleum gas through mains) on September 30, 1954. Over 921 thousand customers have been added to gas utility

CUSTOMERS, SALES AND REVENUES OF GAS UTILITIES AND PIPELINES IN THE UNITED STATES, THIRD QUARTER, 1954

	Quarter ending September 30			Twelve months ending September 30		
	1954	1953	Percent Change	1954	1953	Percent Change
Customers						
Total	27,175,200	26,254,000	+3.5			
Residential	25,115,300	24,294,000	+3.4			
Commercial	1,922,400	1,830,000	+5.0	(See quarterly data)		
Industrial	110,200	106,000	+4.0			
Other	27,300	24,000	—			
Sales in M Therms						
Total	11,773,100	10,918,000	+7.8	59,643,300	55,977,500	+6.5
Residential	1,857,500	1,724,000	+7.7	19,159,300	18,086,400	+5.9
Commercial	641,700	588,400	+9.1	5,326,300	4,999,700	+6.5
Industrial	8,598,900	7,887,300	+9.0	32,201,200	29,933,000	+7.6
Other	675,000	718,300	—	2,956,500	2,958,400	—
Revenues						
Total	\$487,752,000	\$451,830,000	+8.0	\$2,912,965,000	\$2,661,252,000	+9.5
Residential	218,994,000	203,718,000	+7.5	1,692,769,000	1,543,941,000	+9.6
Commercial	50,229,000	46,238,000	+8.6	367,336,000	332,687,000	+10.4
Industrial	202,560,000	186,334,000	+8.7	784,889,000	722,132,000	+8.7
Other	15,969,000	15,540,000	—	67,971,000	62,492,000	—

distributing systems since Sept., 1953.

Gas utility and pipeline sales to ultimate consumers were up 7.8 percent, rising from 10.9 billion therms in the third quarter of 1953 to 11.8 billion therms in the current quarter.

October sales of gas to ultimate consumers totaled 4.5 billion therms, up 5.0 percent over the 4.3 billion therms

sold during October of last year. The Association's October index of total gas utility sales is 190.0 (1947-1949 = 100). For the 12 months ending October 31, 1954 utility gas sales aggregated 59.9 billion therms, an increase of 6.8 percent over the 56.1 billion therms consumed in the comparable cumulative period a year ago.

Venting

(Continued from page 15)

a special classification of natural draft means.

In Laboratories Research Bulletin No. 67, each example of an air supply arrangement is analyzed for possible occurrence of combustion and temperature malfunctioning under simulated field operating conditions including cold induced ventilation air, wind, updraft, downdraft, blocked flue, exhaust fans and clothes dryer effects.

The theory of air infiltration into dwellings due to wind and temperature are discussed in the bulletin together with the size and location of appliance rooms, incompatibility of appliances, single pass systems, recirculating systems and application of safety controls.

The methods of supplying air most generally acceptable depend upon heat

release into the appliance room and the air outlet ducts to create stack action which will induce the movement of fresh air into the dwelling or enclosure. By use of a single pass air supply technique, spent ventilation air may be discharged outdoors.

Such an arrangement permits outside air to be used for proper appliance operation without disturbing the air of the inhabited area. Where there is little danger of freezing water pipes or when only an air heating appliance is installed in the enclosure without water lines, this outdoor air may be obtained directly from outside the structure, or from unoccupied ventilated attics or crawl spaces.

Powered venting or a powered air supply may be used when normal air infiltration methods are insufficient to prevent flue product spillage from the draft hood or when undesirable temperature build-up in the enclosure is encountered.

During the course of the Laboratories study, the present general rule of providing one square inch of free area for each duct or grille per 1,000 Btu of hourly total rated heat input in the room was found to apply satisfactorily to any combination of natural draft appliances when no other air infiltration is available.

Additionally, an area increase of 100 square inches for each air supply duct or grille appears to be necessary to provide adequate air supply to all appliances under all operating conditions, when a blower vented clothes dryer is installed in the same room with natural draft appliances and discharges waste products outside.

Copies of the 110-page research bulletin may be obtained for \$2.00 each from the A. G. A. Laboratories, 1032 East 62nd Street, Cleveland 3, Ohio, or from the Association Headquarters.

Public Information Bureau releases second of employee series

THE A. G. A. Public Information Bureau has issued the second of its "This Is Your Industry" monthly articles for gas company magazines and other employee information outlets.

The current article is entitled "Birth of a Giant." It describes the early discoveries of gas and the development of the industry. Articles to follow will depict exploration, production, transmission, distribution, utilization and

other important phases of the industry.

Art work is provided with approximately 750 words of text. It can be used either as suggested or can be tailored to the individual editor's needs.

Columbia Gas trains army of fire fighters

1

Instruction is first phase of Charleston Group's Safety Fire Prevention School



2

Central valve control simulates blazes which might occur in the natural gas industry

Believing that experience is the best teacher, 1,500 employees of the Charleston Group companies of the Columbia Gas System, Inc., have learned to put out natural gas fires by doing it.

During the past five years, the Charleston Group safety department has conducted fire prevention schools at nine locations throughout the wide territory covered by this Columbia operating group. The students at these affairs, who came from five states, heard excellent instruction on the prevention and methods of extinguishing fires.

But more important, each of these employees had a chance to take extinguisher in hand and actually put out blazes designed to simulate fires that might occur in the gas industry.

The Charleston Group companies, which include United Fuel Gas Co., Central Kentucky Natural Gas Co., Amere Gas Utilities, Virginia Gas Distribution Corp., and Atlantic Seaboard Corp., try to hold their fire prevention schools at compressor stations in order to take advantage of company-owned property and the high gas pressures available.

More recent of these fire prevention schools was the two-day instruction held on October 14-15, 1954, at Beaver Creek compressor station, one of the Charleston Group pumping plants in eastern Kentucky.

There were 134 employees who attended the training session at Beaver Creek. They were representatives of United Fuel's compressor, production, transmission, gasoline, gas measurement, and distribution departments in Kentucky.

The safety instruction at Beaver Creek was strictly for the use of one-man, portable, 30-pound, dry-"baking powder" extinguisher, although instruction at other sites has also included the larger dry-powder units such as the 350-pound wheeled model.

"We divided the group into classes of 20 each," says R. E. McEldowney, safety director for the Group, who has been in charge of this practical course of fire fighting. "We find that you can't get individual attention if you try to deal with more men."

Mr. McEldowney and his assistant, William D. Vineyard, and Lewis O. Smith, training director, conducted three sessions each day on October 14 and 15. Briefly, their program included:

1. *Instruction* in fire prevention with

special emphasis on precautions that will prevent costly and dangerous gas fires. These precautions will make the use of a fire extinguisher unnecessary.

2. *Nomenclature and maintenance* of the dry-powder fire extinguisher. There are hundreds of extinguishers at locations throughout the Group. The need for regular inspections and corrective maintenance is obvious. The Group's safety instructors try to make it obvious to operating employees.

3. *Demonstration* of the techniques of using the dry-powder extinguisher.

4. *Practical* use of the extinguisher by each of the men undergoing the training.

Mr. McEldowney and his safety crew are always assisted by operating personnel in erecting a system of simulated fires in an area well to the rear of the compressor station.

At Beaver Creek, gas under 325 pounds pressure was piped through 1¼-inch pipe to systems of fittings that were made to represent four fires that might possibly occur in the gas industry: (a) gas well fire, (b) bell hole fire, (c) line break fire, and (d) flange leak fire.

For the gas wall fire, a horizontal two-inch pipe was used to represent the well head. For the bell hole, pipe goes underground, and ends abruptly at a hole in the earth. The line break is a piece of two-inch perforated pipe laying in a shallow ditch covered with loose stone and dirt. The flange leak is a header without gaskets around the flanges. To enhance the escape of gas, welding rods are inserted between the faces of the flanges when they are bolted together.

All of these fires are controlled from a central system of valves. The operator stands at this control during any instruction, and he can see all of the simulated blazes from his post, not more than 65 feet from any fire. If an extinguisher can't get a fire out in time to prevent any possibility of danger, the control man at the central valve system can.

Mr. McEldowney and his assistants show just what the fire extinguishers can do. They stress safety when using the handy powder fire fighter, showing the dangers of a changing wind or a faulty CO2 cartridge in the extinguisher.

Then the men take turns at putting out each of the fires. McEldowney or one of the instructors are close by, of course, sometimes hanging on the shirt-tails of the students when they extin-

(Continued on page 39)



3

Flange-leak fire whips around header. Students learn to watch out for wind changes



4

Student uses portable carbon dioxide extinguisher which blows chemicals on flame



5

As blaze dies quickly, another safety school student gains confidence in fighting fires



6

A line break fire, another menace to employee safety is simulated at safety school

*Section embarks on year of service
and study in effort to solve some perplexing problems*

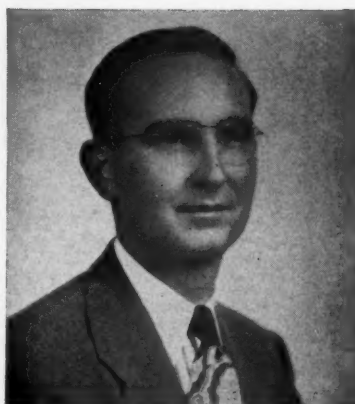
Accountants plan '55 activities

The Accounting Section is actively engaged in a broad plan to render maximum service to its members and to the companies of the industry in 1955. Through the activities of over 340 members of the Section serving on nine standing committees, five special committees, and some fifty project committees, many problems are being studied, and many areas of accounting interest are being explored.

Such matters as the new Internal Revenue Code, new electronic accounting machine developments, continued extension of long-distance transmission of natural gas, rising costs of operation, to name but a few, pose problems and offer opportunities in the field of accounting that are receiving serious attention and study by these committees.

Studies also cover other areas, including improved methods and techniques in auditing, collecting, accounting and billing procedures, means of improving customer relations and employee relations.

With such a broad program under way, it is very fitting that this year's leadership of the Section is in the hands of Austin T. Gardner, vice-president and secretary of the Delaware Power and Light Co., Wilmington, Delaware. Under Mr. Gardner's leadership, Section organization was completed last fall and major strides have already been made in the Section's program in preparation for the National Conference of Gas and Electric Utility Accountants which will be jointly conducted with the EEI Accounting Division at the Conrad Hilton Hotel in Chi-



A. T. GARDNER: (left) Chairman of the Accounting Section; joined Utility Power and Light Corp., Chicago, 1930; assistant to the president, 1935-37; financial accountant, Utility Auditors & Tax Consultants, New York, 1937-41; held the same post with Associated Electric Co., 1941-43; secretary & comptroller, Delaware Power & Light Co., Wilmington, 1943-46, vice-president and secretary, 1946 to date; member and former president, Delaware Accountants' Association. Active in A. G. A. Accounting Section for many years; coordinator, General Activities Group, 1948-49; Section Vice-Chairman last year; author of many published articles



E. R. EBERLE: (right) vice-chairman of the Accounting Section; joined Public Service Electric and Gas Co., Newark, N. J., in 1933; assistant commercial manager 1942-1945; managerial assistant 1945-1949; assistant to general commercial manager, 1949 to date. Chairman, Accounting Employee Relations Committee, 1947-1948; Coordinator, Customer Activities Group, 1949-50; author of several A. G. A.-EEI conference papers and articles which have been published in the A. G. A. MONTHLY

cago, April 25-27, 1955.

Other projects of a particular interest to the gas industry are being prepared for publication in the A. G. A. MONTHLY or for presentation at the A. G. A. Annual Convention. Mr. Gardner is assisted by Edward R. Eberle, Public Service Electric and Gas Co., Newark, N. J., vice-chairman, and Thomas J. Shanley of the A. G. A. staff, Accounting Section Secretary.

The Section Managing Committee directs the activities of the Section, approves policy matters, and assists the

Section leaders in initiating activities of a special nature or interest to the Section. In the furtherance of this function, subcommittees of the Managing Committee have been appointed to deal directly with outstanding matters of current interest to the entire Section.

One of the important subcommittees is the Electronic Accounting Machine Developments Committee. Under the chairmanship of J. C. Messer, The Peoples Gas Light and Coke Company, Chicago, Ill., this committee will continue to keep the industry informed

of developments in electronics for application in all fields of accounting. The committee is planning to continue dissemination of information through publication of the periodic bulletin, "Tubes and Tapes," issued jointly with the EEI Electronic subcommittee.

The Special Committee on Uniform Systems of Accounts is under the chairmanship of C. E. Shields, Michigan Consolidated Gas Company, Detroit, Michigan. Mr. Shields has most capably guided the work of this committee since 1953. Working jointly with a similar group representing E.E.I., this committee has, within the past year, succeeded in minimizing the major controversial areas in the N.A.R.U.C.-sponsored uniform systems of accounts for gas and electric companies. This work has continued for the past four years, during which time the industry committees have emphasized the main point that no compelling reasons existed for complete revision of the systems of accounts, but have reviewed in detail the various proposals submitted by N.A.R.U.C. A final draft of the electric system will be released by N.A.R.U.C. early in 1955. The first complete draft of the revised gas accounts is expected to be released shortly for industry comments and will be carefully studied by this committee.

A special committee on Application of Accounting Principles is functioning under the chairmanship of Emanuel Toder, Consolidated Edison Company of New York, Inc. This committee has the responsibility of following current developments as to principles, conventions, and practices in the accounting profession with particular reference to their application to the gas utility industry. It likewise serves the function of promoting industry understanding of such developments.

The Accounting Developments Service Committee is headed by A. J. Klemmer, Rochester Gas and Electric Corp., Rochester, New York. This committee will continue to solicit, gather and disseminate information to the companies in the industry concerning new ideas or improved procedures and new equipment pertaining to accounting practices. Releases will be issued from time to time as material becomes available to the committee.

Arthur Skelton, The Peoples Gas Light and Coke Co., Chicago, Ill., is chairman of the Compendium Com-

mittee. This committee will continue the important work of maintaining the manual of published Accounting Section articles up to date.

Group programs

The main program of the Accounting Section is developed and pursued by the nine standing committees which are divided into two groups. The General Activities Group is headed by D. W. Peterson, Minneapolis Gas Co., Minneapolis, Minn., as coordinator, and includes five standing committees.

J. H. Purdy, Consolidated Gas Electric Light and Power Company of Baltimore is coordinator of the Customer Activities Group, which includes three standing committees. One other standing committee, the Accounting Employee Relations Committee, covers the interests of both groups and is responsible directly to the Section chairman.

The General Activities Group is developing a well-rounded program of inquiry and study covering all phases of general accounting.

The largest standing committee in the General Activities Group is the General Accounting Committee. R. H. Johnson, The Brooklyn Union Gas Co., Brooklyn, N. Y., is chairman of this committee. Some 16 projects are currently being studied and reviewed by assigned project subcommittees.

At least five of the topics represent possible means for simplification of accounting processes and, therefore, possible economies. The projects include such subjects as "Centless Accounting"; survey of amount of checking and re-checking necessary to assure adequate accuracy; use of departmental or average labor rates in distribution of labor costs; use of "exception principle" in reporting time worked; methods of reporting time in the field, in stations and substations; mechanized procedure on materials and supplies. Also included are innovations in mechanized payroll procedures; acceleration of reports on construction expenditures; developing reports for operating management involving hours, productivity data, etc.; long-range estimates of income, construction, and cash; practices in reporting labor costs to management; definition of scope of activities for a committee to study management of costs; accounting treatment of natural gas suppliers' refunds;



A. W. MERCHANT, chairman, Customer Accounting Committee, superintendent of customer accounting, Michigan Consolidated Gas Co., Detroit, where he has been employed for the last 25 years except for service as a colonel in U.S. Army, 1940-1946



J. H. PURDY, coordinator, Customer Activities Group; employed by Consolidated Gas Electric Light and Power Company of Baltimore for 30 years, as manager of its customer relations department since 1952. He was Chairman, A. G. A. Customer Relations Committee, 1953-54



G. E. SMITH, chairman, Customer Relations Committee, has served Consolidated Edison Company of New York Inc., for over 30 years. Mr. Smith has been manager of company's personal service division since 1949, but has spent most of his time in work dealing with customer relations problems



F. J. MAGUIRE, chairman, Customer Collections Committee. Started as a clerk with Boston Consolidated Gas Company in 1920, is now assistant superintendent, collection and meter reading division. He is active in New England Gas Association



D. W. PETERSON, coordinator of General Activities; has served Minneapolis Gas Company for 25 years and has been secretary and treasurer since 1945. Mr. Peterson has been active in Section committee work, was chairman Accounting Developments Service Committee 1953-54

S. W. BINCKLEY, chairman, Depreciation Accounting Committee. With Southern California Gas Co., Los Angeles for last 30 years, and recently made secretary. He was assistant secretary since 1944; chairman, Accounting Section, Pacific Coast Gas Association, 1941



R. H. JOHNSON, chairman, General Accounting Committee. General auditor, Brooklyn Union Gas Company since 1951; has served with the company since 1946



J. A. RILEY, chairman, Internal Auditing Committee. Has been with Philadelphia Gas Works Div., U.G.I., for 25 years, and is now staff assistant, management service department, in charge internal auditing, inventory control



W. T. MOTT, chairman, Property Records Committee. Previously a public accountant, he has been with The Peoples Gas Light and Coke Co., Chicago for 21 years, is now superintendent of the property accounting department



C. D. OSTERHOLM, chairman, Taxation Accounting Committee, is tax director, Northern Natural Gas Co., Omaha, Nebraska, the company he has served since 1932. Other assignments with company include collection superintendent and traveling auditor



J. F. DALY, chairman, Accounting Employee Relations Committee; assistant controller, Long Island Lighting Co., Mineola, N. Y. Mr. Daly, A. G. A. assistant treasurer, has served for many years on Accounting Section Committees



annual resume of accounting developments affecting public utilities; and study of 1953 annual reports.

In addition, a research project aimed at improving the over-all value of the committee and designed for future committee guidance, is under way. This project is exploring an approach to more scientifically develop study material for investigation by the General Accounting Committee.

The Depreciation Committee, headed by Chairman S. W. Binckley, Southern California Gas Co., Los Angeles, Calif., is continuing to perform a major service to companies in the industry in the field of depreciation accounting. The following seven subjects are being currently studied as the basis for project reports by this committee:

Methods of accrual and reserve computation; survey to ascertain curve types for various elements of electric and gas properties; the effect of declining value of the dollar on depreciation accounting; interim tabulation of service lives and salvage ratios; depreciation methods of publicly-owned utilities; current court and commission decisions relative to depreciation; the depreciation provisions of the 1954 tax law, and their effect on financing rates, income, etc.

Taxation accounting

The large and very active Taxation Accounting Committee is under the chairmanship of C. D. Osterholm, Northern Natural Gas Co., Omaha, Nebraska. The committee will, in the current year, be concerned particularly with amendments to the Internal Revenue Code of 1954. As such bills appear, they will be studied for their effect on the industry, and recommendations will be developed if they appear necessary. Proposed regulations on the Internal Revenue Code are being studied as they become available, and recommendations resulting from such study are being submitted to the Treasury Department for its consideration. Accelerated depreciation is receiving continuing study.

W. T. Mott, of The Peoples Gas Light and Coke Co., Chicago, Ill., is chairman of the Property Records Committee. Some of the subjects of projects being studied by subcommittees include: "Pennyless Accounting" applied to plant accounting; account-

ing for spare parts and re-used materials; accounting for metering installations; accounting for contributions by others to the cost of construction of utility property; "How We Do It" as applied to: (a) use of punched cards for meter records, (b) accounting for gas service construction costs, (c) training personnel in plant accounting work, (d) construction of a gas transmission line.

The committee has also undertaken two long-range projects—first, one covering application and use of machine accounting methods for plant accounting and property records work; and, second, the accumulation of questions and problems pertaining to plant accounting and property records work and the securing of answers to determine industry practices.

The Internal Auditing Committee, under its chairman, J. A. Riley, of the Philadelphia Gas Works, Division of the U.G.I. Co., Philadelphia, Pa., has undertaken a program which, when completed, will add immeasurable information to its internal auditing procedure manual. Subcommittees are working on procedures for auditing stores accounting records, credit and collection records, construction contract audit procedures, stockholders' records audit procedure, customers' deposit audit procedure and "work on customers' premises" audit procedure.

In addition, a paper is being prepared for presentation on the subject, "Practical Application of Statistical Sampling." Other subjects to be covered by project reports will include: audit of construction contracts; experiences in conduct of operational audits; and measures of auditors' performances.

Customer activities

The Customer Activities standing committees completed their organizational work in September last year, and are now well advanced in individual projects. A particular effort has been made this year to select projects which are of current interest and applicable to companies of all sizes.

The Customer Accounting Committee is headed by chairman A. W. Merchant, Michigan Consolidated Gas Co., Detroit, Michigan. The committee has selected seven projects for discussion at the Spring Conference. The subjects

Chairmen of Special Committees



B. S. Rodey, Jr.
Steering Committee
Electronics Research
Project



J. C. Messer
Electronic
Accounting Machine
Developments



A. J. Klemmer
Accounting
Developments
Service



C. E. Shields
Uniform
System of
Accounts



Emanuel Toder
Application of
Accounting Principles



Arthur Skelton
Compendium

include:

Account numbering systems; "marked sense" accounting; estimated meter reading; cash posting—mechanical vs. manual; customers accounts bookkeeping systems; high-low-no consumption check; "why do it?" (to challenge present practices). In addition, plans have been made to prepare an exhibit of meter reading and bill forms. A project chosen for presentation at a joint meeting with other committees of the Customer Activities Group is "Budget Billing."

F. J. Maguire, Boston Consolidated Gas Co., is chairman of the Customer Collections Committee. The committee is actively working on seven projects: rising trends in charge-offs and "what are we going to do about it?"; estimating final bills and its effect on collections; review of form letters and notices; credit and collection practices; standard phraseology for reporting on

surveys; enlargement of the credit picture; and the "no collector" plan. In addition, the Credit Picture Subcommittee will continue to publish in the A. G. A. MONTHLY a semi-annual analysis of credit and collection conditions in the gas and electric industries.

The Customer Relations Committee's chairman is G. E. Smith of Consolidated Edison Company of New York, Inc. This committee, in cooperation with a similar EEI group, last year released its Customer Relations Training Course with manual and film, a monumental project representing over four years of work and study. The main objective of the committee's work this year is still to continue searching for better ways to deal with customers.

In the furtherance of its broad objective, the committee has adopted a three-point program: (1) three subjects to be studied intensively as the basis for project reports, namely, the continuing high-

bill situation, a philosophy for good customer relations, and steps to be taken to promote greater use of the Customer Relations Training package; (2) analysis and consideration of problems confronting the customer contact man such as conditions of collection, metering, service, and public information; (3) other subjects taken from a long list of suggested projects, which are scheduled for discussion during the Spring Conference.

The Accounting Employee Relations Committee, with J. F. Daly, Long Island Lighting Co., Mineola, N. Y., as chairman, and G. A. Ford, Connecticut Light & Power Co., Berlin, Conn., as vice-chairman, is planning an active program for the year. Subjects of projects currently being developed include: indoctrination of the new employee; rules vs. administrative judgment; selection of employees for promotion; job enlargement; and automation—effect on employees.

Lone Star starts architect-builder plan to up sales

A NEWLY ESTABLISHED architect-builder department at Lone Star Gas Company is promoting the company's business through more than 3,000 architects, architectural designers, building supply firms, kitchen cabinet dealers and builders operating in cities served by the Texas utility.

The department is comprised of experts highly trained to ring up sales in the residential and commercial new business fields. The sales specialists are operating in all 427 communities in the company's three major divisions of distribution—the Dallas division, the Fort Worth division and the general division of distribution.

Program activities are coordinated on a systemwide basis by R. L. Stephenson of Dallas. Division supervisors, who report to the respective division sales and promotion managers, direct the program in their divisions.

These activities are supplementary to and

not in any manner a substitute for the company's standard sales promotion program. Formation of the architect-builder department is designed to enable the company to maintain a year-round active program in the new construction field without diverting effort from other promotional activities.

In addition to the execution of actual sales, the architect-builder specialist will perform these functions:

1. Assist the architect or builder in the planning and promotion of "model or demonstration" homes.

2. Sell the idea of adequate gas piping and appliance flue vents, with particular emphasis on provision of gas-fired bathroom heating and gas openings for all appliances including refrigerators.

3. Act as contact man between all departments of the company and the architect-builder.

4. Be on the alert for ideas and activities which will promote the company's business.

"The successful promotion of our business in the new home and commercial market," Chester L. May, Lone Star's senior vice-president, said, "depends upon a carefully planned program supported by an aggressive sales organization. Generally, gas appliance manufacturers and their distributors have expressed a willingness to assist the retailers in competing for this new market, and this program is designed for the purpose of securing the maximum assistance from this branch of the industry. However, it is apparent that the utilities must assume a position of leadership in coordinating the activities of all segments of the industry. We feel that it is the responsibility of our company to take the lead in the introduction and promotion of all new gas appliances, such as the built-in gas range, air conditioners, clothes dryers and incinerators."

Organizing for 1955

Section begins new year of serving gas

and promoting new and better utilization

Photographs spotlight recent organizational



A. D. Frydendall (left) is guest of honor at Industrial Gas Practices Committee luncheon. Mr. Frydendall, retired from The Peoples Gas Light and Coke Co., Chicago, November 30, receives pen and pencil set from committee chairman E. L. Spanagel, Rochester, N. Y.



Industrial Processing Committee meets in Chicago during Metal Show Week to plan 1955 program. Committee studies and promotes use and sale of gas in ceramic, chemical and other industries. Chairman is E. G. Silven (seated, second from right).



Under leadership of G. A. Marble, chairman (standing, second from right), Commercial Processing Committee meets for first time this year to promote use of gas for volume water heating, space heating, retail baking, incineration and other fields.

of serving gas industry, studying

better utilize gas in a score of fields outside the home.

ent original meetings of 1955 committees



Week to plan gas in commercial and from right Metals Committee organizes for new year during A.S.M. Convention in Chicago. Under chairmanship of C. A. Gillum, Dayton (seated, far left), committee discusses projects in its field of gas utilization and sale in metalworking industries



Food Service Equipment Committee organizes its working committees for 1955. Chairman of 40-member group, which studies use of gas in restaurants, hotels, hospitals, institutions, is C. C. Hanthorn, Philadelphia (seated, sixth from left)



Industrial Steering Committee of Promotional-Educational Committee meets in Atlantic City. Seated on left is Chairman K. I. Robinson, Newark, New Jersey

Industry news

Agreement proposes Canadian gas for Northwest

NATURAL GAS from San Juan Basin in the United States and the Peace River Field in Canada will supply the Pacific Northwest under a new plan agreed upon by three pipeline companies.

The project in addition will assure increased supplies of gas to Northern California and to the Denver, Colo., area.

The new plan was announced last month following an agreement reached in Tulsa, Oklahoma, between principals of Pacific Northwest Pipeline Corporation, Westcoast Transmission Co., and El Paso Natural Gas Company.

The agreements call for Pacific Northwest Pipeline to take 300 million cubic feet per day from Westcoast at the Canadian boundary near Sumas in western Washington. Of the 300 MMcf of Canadian gas Pacific will deliver 250 MMcf per day to El Paso Natural at a point near Mountain Home, Idaho for transmission through a pipeline to be built by the latter company. Pacific will use 50 MMcf, and more when developed, to supplement its primary supply from the San Juan Basin and other sedimentary basins in the Mountain States area.

While nearly 3,000 miles of pipeline, costing an estimated \$350,000,000, must be built before all parts of the network can move gas, an approval of the Federal Power Commission and various Canadian government agencies must be obtained.

Pipeline, distributors, producers, government officials and the press of both countries have hailed the new arrangement.

The new agreements will accomplish several major objectives. British Columbia will get natural gas; Peace River reserves are provided an almost unlimited market; the U. S. Northwest will have a two-way supply with the protection of having a primary U.S. source; New Mexico will have an outlet for the shut-in portion of its reserves in the San Juan Basin; and El Paso, the pipeline serving California, is assured an abundant new source of gas for many years.

A brand new pipeline proposal, the third link of the network, is part of the Westcoast-Pacific plan. Officials of El Paso Natural have indicated that a \$35 million, 370-mile pipeline will be built from Mountain Home, Idaho, about 40 miles southeast of Boise, to Reno, Nevada, within the next three years.

El Paso now sells more than two billion cubic feet of gas per day of which about 1.4 billion is delivered to markets in California as far north as San Francisco. Its primary sources of gas are in the Permian Basin of Texas, the Hugoton Basin of North Texas-Oklahoma, and the San Juan Basin.

The fourth link in the network has already been certificated by FPC, at the same time Pacific Northwest Pipeline's proposal was certificated. Colorado Interstate will build 365 miles of 22-inch line to carry 110,000,000 cubic feet per day from Pacific Northwest's line at Rock Springs, Wyoming to the center of its market area near Denver.

Since Colorado Interstate is interconnected with lines taking gas to Chicago, the agreement gives the effect of providing Canadian reserves with access to virtually all U. S. markets. Westcoast's pipeline as originally proposed would have terminated at Portland, Oregon and would have been limited to markets in western Washington and Oregon.

Distributors, who long divided their sup-

port between Canadian and U.S. gas, are unanimous in favor of the new arrangement.

N. Henry Gellert, president of Seattle Gas Co., who for years insisted that the Northwest should not be dependent upon a foreign country for a primary source of gas without international agreements to substitute for regulation by U. S. agencies, said the new arrangement is completely satisfactory.

C. H. Gueffroy, president of Portland Gas and Coke, as thoroughly convinced that Canada was the proper source of gas for the Northwest as Mr. Gellert was insistent upon a U. S. source, has expressed approval of the new arrangement.

Other leading distributors, Allen Peyser, president and general counsel of Washington Gas and Electric Company; Stewart Matthews, president of Cascade Natural Gas Corporation; and Frank Woodworth, president of Spokane Gas and Fuel Company, all expressed satisfaction with the arrangement and predicted the move would hasten the development of cities they serve.



Accountants' seminar reviews electronic advances

MORE THAN 200 utility accounting executives met face-to-face last month with the challenge of the so-called "electronic brain," and mapped out a program to explore its time and money-saving potentialities for the gas and electric industries.

Reports from top level utility accounting executives showed that the mounting interest in electronic streamlining of all phases of utility "bookkeeping" has lifted it from the stage of theory to a reality.

An attendance of more than twice that of last year's seminar also emphasized the high rank of importance being given to electronics in accounting. Some 211 representatives of 68 gas and electric utility companies attended the session.

The American Gas Association and Edison Electric Institute, joint sponsors of the seminar, highlighted the two and a half day meeting with the announcement that a \$100,000 electronic accounting research program had been launched October 1.

The computation laboratory of Harvard University, under the direction of Dr. Howard Aiken, will undertake the three-year project to blueprint a system for automatic customer accounting, payroll accounting, material and supplies accounting and other related accounting applications.

In the preceding sessions, representatives of electronics equipment manufacturers pre-

sented detailed operations of their machines and outlined the past year's improvements along with the future outlook. Represented were Remington Rand, Inc., Addressograph-Multigraph Corporation, Underwood Corporation, Radio Corporation of America, Electro-Data Corporation, Burroughs Corporation, National Cash Register Company, and International Business Machines Corporation.

Progress reports from utility companies already in the process of surveying their own operations with a view toward electronics streamlining brought out the fact that many savings were accomplished as a result of programs of self-analysis.

J. C. Messer, of The Peoples Gas Light and Coke Co., Chicago, and A. G. A. chairman of the meeting, summed up one point of view by saying that a programming project is beneficial whether or not electronic equipment is installed. He said that, in effect, such a program will provide a "house-cleaning" that might not otherwise be achieved.

Walter J. Ott, of The Cincinnati Gas & Electric Company, Cincinnati, EEI chairman, said programming had resulted in similar savings in his company, pointing out that in a single instance 300,000 postings were eliminated in one department. It was his opinion that the less intricate electronics devices provided "excellent training for larger scale machines."

J. D. Elliott, of the Detroit Edison Co., Detroit, recommended an "all the way" electronics streamlining program. He said Detroit Edison has established an electronics programming department and plans to look into all phases of field. "The more we look into electronics," he said, "the more advantageous it looks."

F. J. Porter, Jr., of Consolidated Edison Company of New York, Inc., backed this up with a report of his company's progress. He said it was found that present employees who "know the business" can be easily trained to convert operations to electronics.

R. H. Smith, of the Cleveland Electric Illuminating Co., in Cleveland, said a survey of his firm's needs showed many ways for improvement. As for actual decisions on electronics equipment he told the accountant executives "to decide for yourself the system that is best for you."

R. W. Britt, of the Wisconsin Electric Power Co., Milwaukee, Wis., said his company is operating on a plan to modernize by steps. He said the main point was to go "part of the way" to determine the future use of electronics in accounting.

A. T. Gardner, of the Delaware Power and Light Company, Wilmington, Del., chairman of the A. G. A. Accounting Section, told the final session of the seminar that A. G. A.-EEI research project will help to put the program on the right track.

Consider plan to pipe gas from northeast Colorado to Denver

NATURAL GAS from the fields of northeastern Colorado will be piped into Denver's metropolitan area for the first time if the Colorado Public Utilities Commission approves a pipeline application filed by Natural Gas Producers, Inc., a wholly-owned subsidiary of Colorado Interstate Gas Company.

Natural Gas Producers, Inc., which gathers and transmits gas in Morgan and Logan Counties, is seeking from the PUC a certificate of convenience and necessity to build pipeline facilities to provide natural gas service to the towns of Fort Morgan and Brush from the Adena, Fort Morgan, Little Beaver, Badger

Creek and Bobcat fields and also to provide a connecting link between those fields with Colorado Interstate's main transmission line from the Hugoton, Kans., field to Denver.

The applicant plans to construct 48.7 miles of 10-inch line from the northeastern Colorado gas fields to Colorado Interstate's 20-inch line and also plans to build three miles of eight-inch and 10.1 miles of four-inch line which, with an already existing line, will connect the Adena Field with Fort Morgan. In addition to the pipelines, the application calls for the construction of meter stations and dehydrators. The total cost of the project is

estimated at \$1,374,000.

It is expected that once construction work actually starts, the project will be completed within 60 days.

Construction of the proposed pipelines is expected to mark the start of a new era of development of the natural resources of northeastern Colorado. Many gas properties there have been shut in because of the lack of a market outlet. It is expected these properties now will be developed fully. Approximately 325 oil wells now are producing in northeastern Colorado and are producing a varying amount of gas which is being flared.

Blue Flame Association meets in Nebraska

THE Blue Flame Gas Association held its annual convention on December 7 in Grand Island, Nebraska. Installation of new officers for 1955 preceded the program. Frank Soldan, sales manager, Kansas-Nebraska Natural Gas Co., Hastings, Nebraska was installed as the new president succeeding Herbert Nelson, sales manager, Northwestern Public Service

Co., Grand Island, Nebraska.

L. C. Ginn, merchandise manager, Coleman Co., Wichita, was the morning speaker and Harold Jalass, vice-president, Cribben & Sexton Co., Chicago, spoke during the luncheon. The afternoon session was opened by H. Vinton Potter, American Gas Association's coordinator of promotion and advertising, who

spoke on the "Mrs. America Promotion and How To Do It." He was followed by Carl Olson, sales manager, Central Electric and Gas Co., Lincoln, Nebraska who presented the plans for the promotion of the Mrs. America program in Nebraska. All gas utilities represented at the meeting have signed up for the program.

Southeastern Gas Association offers special training

SOUTHEASTERN Gas Association has outlined its 1955 educational program which was planned by its Committee on Education and conducted in cooperation with the School of Engineering and College Extension Division of North Carolina State College.

One day round table conferences are sched-

uled as follows: *Sales and Advertising*, April 7, Selwyn Hotel, Charlotte, N. C.; *Supervisory Training*, April 14, Wade Hampton Hotel, Columbia, S. C.; *Transmission and Distribution*, April 28, Selwyn Hotel, Charlotte; *Accounting*, May 12, Wade Hampton Hotel, Columbia; *Servicing and Safety*, May 26,

Selwyn Hotel, Charlotte. Three one-month short courses in gas technology will begin on June 13, July 18, and August 15.

For additional information, applications and bulletins, write: Edward W. Ruggles, secretary-treasurer, P.O. Box 5125, State College Station, Raleigh, North Carolina.

Highlights of cases before Federal Power Commission

Bureau of Statistics, American Gas Association

Rate cases

● **Alabama-Tennessee Gas Company:** The company has applied to FPC for a \$74 thousand or 5.3 percent annual increase in wholesale natural gas rates. These higher rates would affect 13 wholesale customers in Alabama, Mississippi and Tennessee. Alabama-Tennessee based its proposed increase solely on the recently filed rate increase by its supplier, Tennessee Gas Transmission.

● **Atlantic Seaboard Corporation:** The company has filed a \$755,000 per year wholesale natural gas rate increase with FPC. This would be in addition to the \$6.6 million increase just permitted by FPC to go into effect as of November 1, subject to refund of any amounts subsequently disallowed by the Commission. Atlantic Seaboard based its proposed increase on the recently filed rate increase by its supplier, United Fuel Gas.

● **Central Kentucky Natural Gas Company:** The company has filed a \$461,000 annual wholesale natural gas rate increase with FPC. This increase would be added to \$1.7 million increase pending before FPC. Central Kentucky based its request on the recently filed rate increase by its supplier Tennessee Gas Transmission. The Commission, on October 29, issued an order permitting Central Kentucky to put its then proposed increase into effect, subject to refund, as of November 1.

● **El Paso Natural Gas Company:** The FPC has suspended all but \$211,000 of a proposed \$18.1 million, or 15 percent, annual wholesale natural gas rate increase filed by El Paso last month. The Commission ruled that under the Natural Gas Act it could not suspend the \$211,000 of the proposed increase since it applied to the sale of natural gas for resale for industrial use only. The higher rates would affect 28 of El Paso's wholesale customers in California, Arizona, New Mexico and Texas.

● **Hope Natural Gas Company:** FPC has permitted Hope Natural to withdraw a proposed \$2.2 million annual wholesale gas rate increase which has been under FPC suspension since last May. The proposed increase was based primarily on an anticipated increase in the cost of gas purchased from Tennessee Gas Transmission. Tennessee, however, was permitted to withdraw its rate increase application by the FPC order issued September 10, 1954. Hope accordingly requested permission to withdraw its proposed increase. On November 10, 1954, Hope asked the Commission to increase its rates by \$1.3 million per year because of a new rate increase application by Tennessee.

In another proceeding, FPC affirmed an initial decision filed by its chief presiding examiner on October 1, reducing a \$3.8 million annual rate increase to \$2.2 million annually. Hope is required to refund to its customers the difference between rates al-

lowed and those which it has been collecting under its proposed rate schedules since last April 9. Hope supplies natural gas to six wholesale customers, the Manufacturers Light & Heat Company, the Mount Morris Gas Company, New York State Natural Gas Corporation, The Peoples Natural Gas Company, the River Gas Company, and the East Ohio Gas Company.

● **Manufacturers Light & Heat Company:** FPC has permitted a suspended \$449,000 annual wholesale gas rate increase by Manufacturers Light & Heat to go into effect as of November 1 subject to refund of any amounts subsequently disallowed by FPC. The increase will affect 18 wholesale customers in New York, New Jersey, Maryland, Pennsylvania, Ohio and West Virginia. Manufacturers bases its proposal on increases in the costs of purchased gas.

● **Michigan-Wisconsin Pipeline Company:** FPC has modified its opinion and order issued last July 30, by allowing Michigan-Wisconsin a slightly higher rate increase than that allowed in the earlier action. In its July 30 opinion the Commission reduced by \$4.8 million per year proposed wholesale gas rate increases totaling \$7.6 million annually, thus permitting a total rate increase of only \$2.8 million. The modification allowed under the new opinion permits a total annual increase of \$3.7 million per year.

● **Tennessee Gas Transmission Company:** FPC has suspended a proposed \$8.6 million, or 6.6 percent, annual wholesale gas rate increase by Tennessee Gas Transmission. Tennessee had proposed to make the increase effective as of November 3 and filed it in substitution for a \$1.1 million increase filed October 18, and allowed to become effective November 18, 1954. Tennessee predicates its increase on increases in the cost of purchased gas. The company serves approximately 70 wholesale customers in Connecticut, Kentucky, Louisiana, Massachusetts, Mississippi, New Hampshire, New York, Ohio, Pennsylvania, Rhode Island, Tennessee and West Virginia.

● **Transcontinental Gas Pipe Line Corporation:** FPC has suspended a proposed \$3.2 million, or 5.4 percent, annual wholesale gas rate increase filed by Transcontinental. Transcontinental predicated its proposal upon rate filings made by its suppliers. In suspending the increase, the Commission said that, "Inasmuch as the major portion of Transcontinental's proposed increase can be supported only by relying upon the effectiveness of the rate increases of most of its suppliers, which have already been suspended, Transcontinental's proposed increase should also be suspended pending determination of the reasonableness of the suppliers' rates."

Gas company cited for service to Pittsburgh



D. B. Beecher (l.) vice-president and general manager and A. W. Conover, president, Equitable Gas Co., Pittsburgh, display plaque awarded utility for contribution to progress and development of community. Plaque, given by city's Chamber of Commerce on its 80th anniversary, praises gas company as a "pioneer leader and dynamic force in the growth of greater Pittsburgh since 1848"

The rate increase would affect 60 wholesale gas customers in New York, New Jersey, Pennsylvania, Maryland, Virginia, North Carolina, South Carolina, Georgia, and Alabama.

● **United Fuel Gas Company:** The company has proposed to increase by \$2.7 million a \$13.0 million increase which has been put into effect, subject to refund, as of November 1. United Fuel based its recent proposal on rate applications for increases by its supplier, Tennessee Gas Transmission.

● In other rate proceedings, FPC has suspended a proposed \$122,000 annual rate increase by Midstates Oil Corporation for natural gas sold to Louisiana Nevada Transit Company. The Commission did not

take any action on 23 other rate increases by independent natural gas producers totaling about \$138,000 per year. These 23 increases will become effective 30 days after filing.

Certificate cases

● **Cities Service Gas Company:** FPC has authorized Cities Service to construct about 13 miles of pipeline, all in Labette County, Kansas. These facilities will enable Cities Service to supply natural gas on an interruptible basis to Kansas Gas & Electric Co., for use in its new Neosho electric generating plant. The estimated cost of the project is \$285,000.

● **Transcontinental Gas Pipe Line Corporation:** The company has filed an applica-

tion with FPC requesting authority to construct approximately 292 miles of 36 and 30-inch pipe paralleling sections of Transcontinental's existing system in Louisiana, Mississippi, Alabama, Georgia, North and South Carolina, Virginia, Maryland and Pennsylvania. The construction program also would include three river crossings, a 1,650 horsepower addition to a compressor station proposed in another application, and miscellaneous additions to existing compressor stations. The proposed project would cost an estimated \$38.3 million and would enable Transcontinental to increase deliveries by a total of 69.4 million cubic feet of gas per day to 32 existing customers in Alabama, Georgia, North and South Carolina, Virginia, Delaware, Pennsylvania and New Jersey.

LP-Gas Promotion Council engages Cramer-Krasselt

APPPOINTMENT of the Cramer-Krasselt Co., Milwaukee, specialist in dealer advertising, to create and produce local-level materials for the National Council for LP-Gas Promotion was announced by James E. Pew, president. Cramer-Krasselt will work closely with the council staff and with McCann-Erickson, Inc., Chicago agency recently retained to handle the organization's national advertising.

President Pew, who is manager of the natural gas and natural gasoline department for Sun Oil Company, Philadelphia, said Cramer-Krasselt is nationally recognized as a leading creator and producer of dealer-level materials. It is currently handling the outdoor poster, bus card and other programs for American Gas Association. It is also engaged in many additional promotion projects in the gas

industry. McCann-Erickson has for many years been A. G. A.'s agency for national domestic consumer advertising.

Mr. Pew pointed out that the arrangement in effect with the Beals Advertising Co., Oklahoma City, Okla., since 1950 will be ended. The 20 per cent discount granted to members of the National LP-Gas Promotional Program will be discontinued.

Better copy contest launched again by PUAA

MEMO TO ALL advertising men: the 32nd annual Better Copy Contest is underway! The oldest continuous competition conducted in the advertising profession, the contest is sponsored by the Public Utilities Advertising

Association. This year, there will be 183 awards granted in 28 classifications, such as newspaper, direct mail, radio and many others. Each award has national significance and carries honor.

Complete information is available in the rules book for the PUAA 1955 Better Copy Contest, which can be obtained from the contest chairman, Ernest R. Laws, Philadelphia Electric Co., Philadelphia 5, Pennsylvania.

IGT confers nine certificates

NINE GAS utility employees have completed the Institute of Gas Technology Home Study Course, "Natural Gas Production and Transmission," during November and received their Certificates of Accomplishment.

They are: Erwin C. Thompson, Empire Southern Gas Co.; Austin P. Rathke, Dominion Natural Gas Co., Ltd.; Robert L. Mollitor, Cities Service Gas Co.; and Clarence R. Holmes, Toby W. Lewis, Tom C. Thigpen, Cloyd T. Thompson, Lowell B. Welch, L. T. Williams, Citizens Gas and Coke Utility.

Gas Practice course

FOUR MORE men have been granted certificates for completing both Part I and Part II of the course in American Gas Practice, sponsored by American Gas Association and conducted by Professor Jerome J. Morgan. The home study course is divided into production of manufactured gas; and distribution and utilization of city gas.

Those accomplishing completion are: John Elder Cohoon, employed by Brooklyn Union Gas Co., New York; Stanley E. Brinton and Harold N. Neely who serve the Harrisburg Gas Div., United Gas Improvement Co., Pennsylvania; and Leonard Richard Smith, Jr., an employee of Public Service Electric and Gas Co., Newark, New Jersey.

N. J. plant wins A. G. A. Safety Merit Award



American Gas Association's Safety Merit certificate, given for the completion of over a million consecutive manhours without a disabling injury, is proudly displayed at the Camden Coke Plant of Public Service Electric & Gas Company of New Jersey. The award, one of only 15 such honors bestowed in the industry this year, is held by William Adams, chairman of the winning plant's Safety Committee. Admiring award are (l. to r.): Richard Cecich, labor union representative; Mr. Adams, E. F. Weeks, assistant general superintendent, gas manufacture and C. G. Kelly, engineer, southern division

Southern Counties prepares for record growth in 1955

SOUTHERN COUNTIES Gas Co., Los Angeles, expects to add a record 53,000 new meters to its lines in 1955 and has budgeted \$13,553,700 for the year to serve consumers in its system.

The budget is the second largest in the company's 43-year history, exceeded only by the \$15,000,000 spent in 1953 when major

construction was scheduled on the California-Texas "Biggest Inch" pipeline which Southern Counties owns jointly with Southern California Gas Co. Highest number of meters expected for any one year prior to 1955 was this year when the company anticipated 44,000 new sets.

Increased costs of serving customers are

indicated by the fact that in 1955 the company expects to spend an average of \$165 to connect each new customer, whereas in 1940, it cost only \$75 to hook up a similar customer.

Nearly 66 percent of the company's proposed 1955 budget, or \$8,888,539 is being allocated to connect and service new customers.

NACE to hold eleventh annual exhibit and conference

CORROSION engineers soon will have a chance to keep up-to-date on protective and preventive coatings, corrosion inhibitors, pipe wrapping machines, cathodic protection equipment, plastics, sand blasting equipment, metal alloys, pipe wrapping materials and other anti-corrosion equipment. The occasion will be the 11th annual conference and exhibit

of the National Association of Corrosion Engineers, to be held at the Palmer House in Chicago, on March 7-11.

In addition to the 127-booth exhibit, over 50 committee meetings will be held. Members of the Technical Committee on Pipe Line Corrosion will discuss minimum requirements for application and materials for protecting

gas pipelines. Tentative minimum requirements will be proposed on asphalt type coatings, coal tar coatings, wrapping materials and minimum current requirements for cathodic protection. In addition, a report on tests designed to lead to the development of suitable methods for evaluating internal corrosion in products pipelines will be considered.

A. G. A. announces new publications during December

LISTED BELOW are publications released during December, up to closing time of this issue of the MONTHLY. Information in parentheses indicates audiences.

OPERATING

• **Correction**—In the December 1954 MONTHLY, page 33, both *Purging Principles* and *Gaseous Fuels* were erroneously listed as free publications. Prices, for each publication, are as follows: for members, \$5.00 each; in lots of 10 or more, \$4.00. For non-members: \$6.00 each; \$5.00 in lots of 10 or more; for students, \$4.00.

RESEARCH

• **Outdoor-Air Supply and Ventilation of Furnace Closet Used with a Warm-Air Heating System** (for heating appliance manufacturers, installers, architects, utility companies). By R. W. Roose, Norman A. Buckley and Seichi Konzo. Available from American Gas Association Headquarters, New York, 70 cents per copy.

SAFETY

• **How Injuries to Gas Men Might be**

Avoided (for all safety men in the gas industry). Sponsored by Howard Cook, Accident Prevention Committee, available from A. G. A. Headquarters, New York, for 10 cents a copy.

STATISTICAL

• **Monthly Bulletin of Utility Gas Sales, November, 1954** (for gas companies, financial houses). Sponsored by, and available from the A. G. A. Bureau of Statistics. Headquarters, free.

Toronto college and NACE sponsor short course

A THREE-DAY short course in corrosion is scheduled to be held February 2-4 at the University of Toronto, Ontario, Canada. The university extension service is sponsoring the course with the cooperation of the National Association of Corrosion Engineers. Topics outlined on the tentative program include fundamentals, factors influencing corrosion rate, bituminous coatings, corrosion resistant

alloys, diagnosis of corrosion problems, corrosion due to imperfections in alloys, theory and practice of cathodic protection, inhibitors, use of electrical instruments in corrosion control.

Further information regarding the short course may be obtained from T. R. B. Watson, Corrosion Service, Ltd., 21 King Street East, Toronto, Ontario, Canada.

Sprague leads Insurance Committee meeting

THE AMERICAN Gas Association Insurance Committee held its first meeting in the new Association year in Chicago, on November 11th. Robert T. Sprague, manager of the insurance department, Cities Service Petroleum, Inc., New York, the 1955 chairman of the committee, presided at the luncheon meet-



R. T. Sprague

ing which was held in conjunction with the Fall Insurance Conference of the American Management Association. Subcommittees were appointed and a program of action for the year was agreed upon.

Mr. Sprague, after being graduated from Cornell University in 1924 with a degree in engineering, served as a valuation engineer for Henry L. Doherty & Co., and as an auditor making special surveys and reports on office planning, accounting and insurance problems. Since 1934 he has done insurance analyses and insurance purchasing for gas, petroleum and electric subsidiaries of Cities Service Company.

Timers successful

THE W. J. SCHOENBERGER Company reports that its top burner timer has been installed on more than 40,000 gas ranges since the Cleveland company introduced the device a year ago. It is said that the top burner timer, the first to be placed on the market, has had an enthusiastic public acceptance wherever shown.

Operation is described as simple and easy. After ignition of the top burner the timer may be set to any predetermined time from one to 60 minutes, and at the end of this time the top burner shuts off. With this device any top burner cooking operation can be accurately completed without any observation by the housewife.

When the center button on the timer is depressed the timed top burner may be used in the conventional manner for any ordinary boiling operation.

When the timer is in use, as it returns to the "off" position a bell rings as it does on a regular "minute-minder" type of control. Should the user not be using the timed burner, she may use this timer as a regular "minute-minder" for any operation in her kitchen, since at the end of the timed cycle the bell will ring.

Gellert resigns as Seattle Gas Company president to re-enter consulting field

N HENRY GELLERT will resign as president of the Seattle Gas Company on March 15 in order to re-enter the wider sphere of management consultant to public utilities and other industries throughout the nation. Succeeding Mr. Gellert as president will be Walter Byrne, a member of the company's board of directors and formerly general manager of the Metropolitan Utilities District Gas Department, Omaha. Charles M. Sturkey will continue as general manager, and has been advanced to the office of executive vice-president.

Mr. Gellert, who is the company's largest individual stockholder, will act as consultant to the firm. Before joining the Seattle utility

in 1941, he was engaged as a professional utility consultant. At one time he managed 30 gas, water and electric companies.

Mr. Gellert is a graduate of Yale College and Yale Sheffield Scientific School. He entered the utilities business as a cadet engineer with American Gas Company. He was later chief engineer of the Public Service Construction Co., Great Lakes Utilities Co., Southern California Water Co., and American States Utilities Company. He was chairman of the board, Edison Sault Electric Company. Mr. Gellert is the designer and builder of the first successful electric blast furnace gas cleaners in the country. He is a former president of the Pacific Coast Gas Association, and has served

on the boards of many technical associations.

At the present time, Mr. Gellert is a member of the boards of American Gas Association and the Institute of Gas Technology, Chicago. He was a member of A. G. A.'s Defense Committee, and serves on the Committee on Economic Policy of the U. S. Chamber of Commerce and of the board of the National Industrial Conference Board.



N. Henry Gellert

Personal and otherwise

Hough leaves Southern Counties and A. G. A. post

FREDERIC A. HOUGH has resigned as vice-president of Southern Counties Gas Co., Los Angeles, to join the Bechtel Corporation of San Francisco. Inasmuch as the Bechtel company is not a utility, Mr. Hough is also resigning as second vice-chairman of the American Gas Association's Operating Section, to which office he was elected last October. He will continue, however, as a member of the Section's Managing Committee and The Special Committee on Section Organization.

Mr. Hough has long been active in Association work and has served as A. G. A. representative to ASA Sectional Committee B31, on Code for Pressure Piping, ASA B31.1. In that capacity he served as chairman of Subcommittee 8 of the Sectional Committee, which has recently completed the revision of Section 8 of B31 on Gas Transmission and Distribution Piping.

The Section's Nominating Committee is now engaged in selecting a successor to Mr. Hough.

Rose to retire from gas industry service this month

H S. ROSE, who has been president of United Natural Gas Co., The Mars Company and The Sylvania Corporation since 1950 has announced that he will retire from active service when his present terms of office expire on January 20. His successor will be elected by the boards of directors of the three companies on that day.

Thus will come to a close a prominent and an unusually active career in the gas industry, extending over 52 years during which he rose from a humble position to that of chief executive of the companies he served. During this time, Mr. Rose has observed the growth of the natural gas industry from its modest beginning to its present place as the nation's sixth largest industry. His has been the guid-

ing mind in much of United Natural's expansion over the same period.

Mr. Rose was born and educated in New York City. His first employment was in a lumber yard where he worked for eleven months. He began his long and distinguished career in the natural gas business in 1903 when he entered the employ of National Fuel Gas Company and its affiliates in New York City as a messenger. In 1908, headquarters of United Natural Gas Co., a National Fuel subsidiary, were moved to Oil City, Pa., and he was transferred to that place as a clerk in the accounting department.

In 1916 he became chief clerk in the accounting department and in 1919 he was appointed an assistant treasurer. He was elected

to the board of directors of the United and Mars companies in 1920 and secretary and treasurer of the two companies in 1927.

When The Sylvania Corporation was acquired in 1928, Mr. Rose was elected a director and secretary-treasurer of that company. In 1950 he was elected president of the three companies and was also elected a director of National Fuel Gas Co., the parent of UNG, Mars and Sylvania.

Great as has been Mr. Rose's service to UNG, his usefulness has not been confined alone to his company. For many years he has been an active member of American Gas Association and he is a director and past president of Pennsylvania Natural Gas Men's Association.

Boston Consolidated elects vice-president and assistants

ANDREW W. JOHNSTON has been elected a vice-president of Boston Consolidated Gas Company. Henry R. Condon, Frank L. Corcoran and M. Frank Knoy have been named assistant vice-presidents and Claude F. Machen has been elected assistant to the president, E. H. Eacker. All are active members of American Gas Association.

Mr. Johnston will be vice-president in charge of operations, coordinating the work of the production and construction department, the distribution department and the technical department. He came with the company at the end of 1949. Mr. Johnston was a graduate of the U. S. Naval Academy in 1927 and joined the United Gas Improvement Company as a cadet engineer. From 1936 to 1942

he was with the Hartford Gas Light Company as superintendent of distribution and from 1942 to 1949 held the same position with the Washington Gas Light Company.

Mr. Condon is a veteran of 32 years' service with the gas company. He attended the University of Maine and joined the company in 1922. Since 1949 he has been assistant engineer of distribution and now becomes engineer of distribution.

Mr. Corcoran, a graduate of Purdue University, came with the company in 1942 as a mechanical engineer and has had wide experience in the construction of gas installations. He had previously been employed by the Koppers Company and Bartlett Hayward Company. In 1949 he was named engineer of production

and construction, a position he will continue to hold.

Mr. Knoy joined Boston Consolidated Gas Company as technical engineer in 1949 and has a broad experience in gas and fuel technology. He is a graduate of Texas Christian University, and has been employed by Gulf States Utilities Co., Institute of Gas Technology, Republic Heater Co., Chicago, the Municipal Gas Co., Long Beach, Calif., and Eastern Gas and Fuel Associates, Boston. He continues as chief technical engineer.

Mr. Machen has been head of the Charlestown electric division and assistant to the engineer of production and construction since 1949. A graduate of M.I.T. he came with the company in 1936.

Jacobs, Foster and Shea advance in Southern California organization

W M. JACOBS, vice-president, Southern California Gas Co., Los Angeles, has been promoted to the position of vice-president and assistant general manager of the company. As assistant general manager, his executive field, hitherto concerned mainly with sales, customer functions, public relations and advertising, will be broadened to include all phases of company operation.

Mr. Jacobs' former responsibility as vice-president of sales and customer functions will be assumed by Frank M. Foster, who has been elected a vice-president. P. R. Shea, formerly general staff supervisor in the sales department, will succeed Mr. Foster as general sales manager.

F. M. Banks, president and general manager, reports that growth of the company, necessitated by the heavy population increase of the South in recent years, has resulted in continuously heavier demands upon his time as general manager, which will be alleviated by the appointments.

Mr. Jacobs joined the gas company in 1930, shortly after graduating from California Institute of Technology. He has held various supervisory and executive posts in the sales department of the company, including that of general sales manager, and was elected a vice-president in 1949, and made a director in 1950.

Mr. Jacobs has been active in the affairs of American Gas Association as well as the Pacific Coast Gas Association. He has served on the A. G. A. National Advertising Committee and is a past-chairman of its Residential Gas Section.

In addition to his service as a former president of the Pacific Coast Association, he has served as chairman of its Sales and Advertising Section, winning a gold medal for that activity in 1944.

Mr. Foster, also a graduate of California Institute of Technology, has been with the company since 1936. He became general sales manager in 1949. He, too, is an active member



W. M. Jacobs



Frank M. Foster

of American Gas Association.

Mr. Shea is a graduate of Notre Dame University. He joined the gas company as a sales representative in 1946, and has since served in various sales department supervisory capacities. Mr. Shea is a member of American Gas Association.

Franck resigns position with Milwaukee Gas Light

B T. FRANCK, vice-president in charge of sales, Milwaukee (Wis.) Gas Light Co., has resigned his position in an effort to regain his health. Since his retirement this fall, all sales activities have been under the direction of Jack Mikula, general sales manager.

With almost 40 years of service in the gas industry behind him, Mr. Franck began as an

office boy at the American Light & Traction Company. Later he became associated with the Grand Rapids Gas Light Company, then joined the Milwaukee Gas Light Company in 1939 as vice-president in charge of sales and service. Mr. Franck bore that title until 1949 when customer service was transferred to the operations division. Since then he has directed

the sales program exclusively.

Long active in A. G. A., B. T. Franck is well known in gas circles across the country. In 1949, he served as chairman of A. G. A.'s Industrial and Commercial Gas Section. He has been a staunch supporter of natural gas, and played an important role in introducing it to the Milwaukee area some years ago.

Laclede promotes top echelon executives

A LLEN H. BURGESS, vice-president and general superintendent of Laclede Gas Co., St. Louis, has been appointed vice-president in charge of operations. At the same time, R. J. Vandagriff and E. L. Ramsey were elected vice-presidents. Mr. Vandagriff will be vice-president in charge of sales and Mr. Ramsey will be vice-president in charge of industrial relations. John McKearin has been named sales manager.

Mr. Burgess joined Laclede in May, 1951 as general superintendent. He is a member of American Gas Association, and this year is

active in the work of the Operating Section's Underground Storage Committee.

Mr. Vandagriff became sales manager of Laclede in 1941, after nine years as assistant sales manager for the St. Louis County Gas Company. He began his career with the Des Moines Gas & Electric Company in 1927. Mr. Vandagriff has been very active in A. G. A. affairs, and served in 1953 as chairman of the Residential Gas Section.

Mr. Ramsey joined the Laclede Gas Company in 1932 as assistant training director of customer service personnel. Before becoming

assistant vice-president of employee relations in 1947, he served the company as supervisor of customer service and manager of customer relations. Mr. Ramsey is chairman of A. G. A. Personnel Committee this year.

Mr. McKearin began his career with Stone & Webster, Inc., and served as sales manager for several New England companies including manager of domestic sales for the Boston Consolidated Gas Company. He joined Laclede as assistant sales manager in 1950. This year he is chairman of the A. G. A. Residential Gas Section Gas Clothes Dryer Committee.

Kruger retires from Rochester utility

R E. KRUGER has retired from Rochester Gas and Electric Corporation after 38 years of service, most of which was in the gas manufacturing division of the company.

Mr. Kruger was graduated from the University of Rochester in 1916, having specialized in chemistry and biology. In the same year he

joined the company as a cadet engineer rising to general superintendent of gas manufacturing in 1947.

As manager of the research and development work for the company since early in 1950, Mr. Kruger has been working with the Detroit Edison group in the study of nuclear

fission and the development of a reactor that can be economically used for the generation of electrical energy. Mr. Kruger, because of his interest and knowledge in this field, will continue work on the project after his retirement.

He has been a member of many important technical committees of A. G. A.

East Ohio appoints Leusch vice-president

PETER F. LEUSCH, treasurer of The East Ohio Gas Co., Cleveland, has been named a vice-president of the utility in charge of finance and accounting.

Mr. Leusch started with East Ohio in 1920 as a junior clerk. In 1935 he was placed in charge of the company's tax department and

a year later advanced to the post of chief clerk of the accounting department. He was named treasurer in 1939. Mr. Leusch was educated at John Carroll University.

Currently the new East Ohio vice-president is serving on the American Gas Association's Uniform System of Accounting Committee.

Council names Bovee

W H. BOVEE has been elected president of the Blue Flame Merchandising Council of Dallas. Mr. Bovee, an employee of the Hardwick Stove Co., heads the organization which was formed in 1945 to exchange ideas in connection with the merchandising of gas appliances.

New burner boasts design improvements

THE PATROL Valve Co., Cleveland, is commercially manufacturing a top burner incorporating some points of improvement for ranges which were shown at the PAR Range Unit Demonstrations early in 1954.

Departing radically from conventional design, the new burner is light in weight—as much as 14 pounds less than many standard range burners. By using a stainless steel head, of unique construction, great reduction in diameter has been achieved. Some results are: a

rust-free burner head; easy removal for cleaning; minimum burner clogging; fuel economy; cooking speed.

An outstanding feature is the burner's number of heating speeds, from rapid boiling to keep-warm—with a single burner and venturi tube. Standard size burner has Btu range from 9000 down to 500, and giant size burner from 12,000 to 600.

The burner can be used for operation on all commercial gases with no alterations.

Fire fighters

(Continued from page 25)

guish the line-break or flange-leak fires, and the man at the control valves can shut off the natural gas fire in a fraction of a second in case it gets out of control.

There are no failures in this instruction. "If a man doesn't get a fire out the first time he goes through the course," says McEldowney, "he goes through it again. In this business, self-confidence is as important as the extinguisher."

Each man who completes the course receives a bill-fold size card certifying him a "graduate" of a fire-fighting school.

Although each man fights each of the four fires "all by his lonesome," Mr. McEldowney emphasizes that during an actual fire, as many men with as many extinguishers as possible should be used.

"The rules of good sportsmanship don't apply to fighting gas fires," he says. "You've got to hit a blaze with everything you have and as soon as possible."

The Group safety department stresses this point practically as a monotonous chant: "No fire is worth a man's life. If it's too big for you to get out, you get out of there."

That's one of the big purposes of the training—to teach operating personnel

just what they can or can't handle with the dry-powder extinguishers.

And what's the proof of the pudding?

It's hard to measure just how effective this training has been. It's expensive—thousands of dollars in preparing the locations, using thousands of cubic feet of gas and thousands of pounds of dry "baking-soda" extinguishing powder and CO₂ cartridges.

But, with only one exception, the Charleston Group has not had to "take a line" because of fire since this training began. This one line fire which necessitated shutting off and rerouting gas was a major eruption on the 26-inch Cobb-Rockville line that all of the extinguishers in West Virginia could not have put out.

"We can't keep any results on this thing," says Mr. McEldowney. "A line-walker may start a fire through carelessness. If he has an extinguisher in his truck and he gets the fire out, he's not going to his foreman and tell him: 'I started a fire on the 10-inch but in spite of my negligence, I got it out with my handy fire extinguisher.'"

"All we know is that the men are not running from fires that they left burning ten years ago. We think this individual training for practically every operating employee is responsible for the change."

New Kitchens

(Continued from page 17)

8. Over 3,000 people went through the house on opening day.

9. Over 3,500 architects, builders, finance institutions, dealers, plumbers, and home economists were furnished a copy of the newspaper supplement featuring the Blue Flame Home.

A. G. A.'s new color film, "A Word to the Wives," made in cooperation with the *Woman's Home Companion* and the National Association of Home Builders,

has served in many areas to further cement relations between the gas company and the local NAHB chapter. This film is available in either 16mm or 35mm sound.

Of course, one of the most effective means used over the years to draw the local gas company and the New Freedom Kitchen Cabinet dealers together is distribution of national magazine reprints of "dream kitchens" to customers. The variety of these reprints is wide.

(Continued on next page)



1955

JANUARY

- 13-20 •National Housewares & Home Appliance Exhibits, Chicago, Ill.
- 16-20 •National Association of Home Builders Convention, Conrad Hilton Hotel, Chicago, Ill. (A. G. A. will exhibit)
- 24-25 •Industrial Furnace Manufacturers Association, Detroit, Mich.
- 24-26 •A. G. A. Home Service Workshop, Drake Hotel, Chicago, Ill.
- 27-28 •Southern California Meter Association, Instrument Short Course, Los Angeles Harbor Junior College, Wilmington, Calif.
- 28 •Pennsylvania Gas Association, Mid-Winter Sales Conference, Benjamin Franklin Hotel, Philadelphia, Pa.

MARCH

- 7-9 •Mid-West Gas Association, St. Paul, Minn.
- 7-11 •National Association of Corrosion Engineers, Chicago, Ill.
- 21-23 •A. G. A. General Management Section, Spring Conference, Cincinnati, Ohio
- 24-25 •New England Gas Association, Annual Meeting, Boston, Mass.
- 24-25 •Oklahoma Utilities Association, annual meeting, Tulsa, Okla.

APRIL

- 12-14 •A. G. A. Sales Conference on Industrial and Commercial Gas, Hotel Statler, Boston, Mass.
- 12-15 •A. G. A. Distribution, Motor Vehicles and Corrosion Conference, Cincinnati, Ohio
- 18-19 •A. G. A. Residential Gas Section, Eastern Natural Gas Regional Sales Conference, Hotel William Penn, Pittsburgh, Pa.
- 19-21 •Southwestern Gas Measurement Short Course, University of Oklahoma, Norman, Okla.
- 20-22 •Indiana Gas Association, Annual Meeting, French Lick, Ind.
- 25-27 •Mid-West Regional Gas Sales Conference, Edgewater Beach Hotel, Chicago, Ill.
- 25-27 •National Conference of Electric and Gas Utility Accountants, Conrad Hilton Hotel, Chicago, Ill.
- 28-29 •A. G. A. Research and Utilization Conference, Hotel Statler, Cleveland, Ohio

MAY

- 1-4 •LPGA Annual Convention, Conrad Hilton Hotel, Chicago, Ill.
- 2-4 •U. S. Chamber of Commerce, Annual Meeting, Washington, D. C.
- 2-6 •A. G. A. Industrial Gas School, William Penn Hotel, Pittsburgh, Pa.
- 9-10 •A. G. A. Gas Supply, Transmission and Storage Conference, William Penn Hotel, Pittsburgh, Pa.

Personnel service

SERVICES OFFERED

Financial-Accounting Executive—experienced in electric, gas, water, telephone utilities, seeks assignment as controller, treasurer or budget director. Skilled administrator, keen analyst. Thorough knowledge modern accounting techniques, IBM, auditing, finance, costs controls, budgets, systems and procedures, credits, insurance, taxes, pensions, government contacts. Harvard trained—business administration, accounting, financing, statistics, law. Can relocate, U.S. or abroad; knowledge languages. Available immediately. 1788.

Administrative Engineer—B.S. in Chemical Engineering. Four years' engineering and supervisory experience with natural gas utility of approximately 17,000 meters. Desire similar position with a larger utility. Prefer middle-west and position with advancement potential and security. 1795.

Combustion Engineer—B.S. in Engineering. Presently employed as a combustion engineer at a steel plant in Canada. Desires position in industry or organization dealing with fuel. Canadian, married, two children. 1796.

Administrative Assistant—position desired that offers a promising future. Young, aggressive, capable and ready to assume responsibilities; college graduate with engineering and administrative management education; 3 years' experience in equipment manufacturing and valuation engineering. 1797.

Sales Engineer—Fifteen years' experience in selling wide variety of gas appliances and equipment, principally industrial. Energetic, aggressive, hardworking executive desires position having advancement potential with appliance manufacturer or gas utility. Willing to relocate, but Eastern Seaboard preferred. 1798.

Public Utility Engineer—capable of planning and supervising preparation of rate and regulatory matters under management direction. Can personally testify before commissions and assist management in utility operations. Have comprehensive knowledge of public utility requirements and experience in processing matters before commissions and public bodies. Experienced in assistant to top management, consultation, contract negotiation and administration. 1800.

POSITIONS OPEN

General Sales Manager—in 35-45 year age bracket. Qualified to direct, from a central administrative office, sales and load building program for geographically separated electric, gas, and telephone properties. Experience in actual selling and in building of sales forces absolute requirement. Familiarity with technical bases for competitive selling desirable. Eastern location. 0751.

Home Service Director—degree in Home Economics required. Some experience in gas utility work desirable. Presently, one-girl department in Pacific Northwest manufactured gas company. Excellent opportunities for expansion as a natural gas conversion is anticipated very soon. Give full details in first letter as to education, experience, marital status and salary expected. 0752.

Engineer—manufacturer of gas boilers requires competent engineer with managerial skill for development production and field service. Position offers responsibility, permanency and salary commensurate with ability and experience. Pleasant location in New York Metropolitan area. 0753.

Assistant Vice-President, Operations—headquarters in New England. Must be thoroughly familiar with public utility field, including operations. To evaluate operating methods, handle preliminary development of construction and operating budgets; help analyze rates, new rate studies, and act as witness in preparation of rate cases for public utility commissions; handle labor contracts and negotiations. Age: 32-38. Salary: to \$10,000. 0754.

General Manager—required for a rapidly expanding electrical utility and an extensive gas utility in the province of Saskatchewan, Canada. State fully background and experience including previous training in and knowledge of electrical and gas utilities and industrial and public relations. State salary expected and date available. 0755.

Plant Manager—capable of taking charge of operation of small plant manufacturing furnaces and heating equipment. Must know plant engineering, labor relations, scheduling, industrial engineering, tools, dies and machinery. Engineering degree and some sales experience in heating is desirable. Permanent position with constantly increasing potential with well rated company. Submit details about self and past experience and salary expected. 0756.

Home Economist—for permanent home service position in Midwestern natural gas utility. Desire lady with pleasing personality, degree, age 25-38 and home economics teaching, demonstration or sales experience. Good salary, opportunity for advancement, insurance, paid vacation and other benefits. State qualifications, age, enclose picture. 0757.

Gas Sales Engineer—semi-utility propane tank truck operation switching over to natural gas in several communities, averaging 3,000 population. Company located in the northern part of Red River Valley on the Minnesota side. Salary depends upon experience in building natural gas load in small towns. Salary range from \$600 to \$800. 0758.

(Continued from preceding page)

enough to include all major cabinet lines.

The National Cabinet Manufacturers working with A. G. A. and supporting the gas industry nationally in shows, promotion and advertising are American Kitchens, Curtis, Geneva, Kitchen

Maid, Lyon Metal Products, Mengel, Miller Metal Products, Mutschler, Mullins (Youngstown), Republic Steel, St. Charles, Toledo Desk & Fixture, Tracy Kitchens, and Wood-Metal Industries.

The dealers of these companies will sell hundreds of thousands of new

kitchens during 1955. Because of our industry's close relation with these manufacturers and our non-competitive position, we are in the extremely fortunate position of being able to swing the majority of these kitchens to gas locally through company efforts.

Early documents

(Continued from page 21)

taining from 800 to 2500 cubic feet of space are shown.

The most elaborate of these is the "Cheerful Gas Stove," which "has all the appearance of an open fire without smoke or smell, and is a perfect ventilator." It is an ornamented enameled model with a highly polished foot piece; and a top of polished slate. The copy says it is "highly finished, pretty, and an ornamental piece of furniture for a parlor, library, sitting or dining room."

Another appliance is a gas hot water cistern, holding about eight gallons of water, especially adapted for placing by the side of gas cooking stoves. It is also "strongly recommended for general use

in stables, workrooms, factories, etc., or where a large quantity of boiling water is frequently required."

Stoves for heating smoothing-irons (flat irons), tailors' and hatters' irons are also pictured.

That some advantages of gas appliances have not changed through the years is attested by the following excerpts from testimonial letters:

"Having used one of your No. 7 Sun Dial Gas Cooking Stoves since June 23rd, I can cheerfully recommend it to any one wanting to have their house comfortable after cooking . . . and doing all you claimed it would do."

"I would especially recommend it, for nicely roasting or broiling good beef."

"In my humble opinion, any man who

really wants to add to the number of allotted days of his better half, had better invest in a 'Sun Dial' and save her worry, and himself expense."

The illustrations in this catalog will reproduce well and the A. G. A. Library will be glad to have photostats made for any company desiring to use them.

Mr. Terry, the donor, joined the gas industry in 1902 as a cadet engineer with Westchester Lighting Company and subsequently worked in the manufacturing, chemical and distribution departments of Consolidated Gas. For more than 12 years he was secretary of the Society of Gas Engineering.

In pursuit of his historical interests, Mr. Terry has been president of the Ossining Historical Society and a charter member, Westchester Historical Society.

